The Self-Sufficiency Project at 36 Months:

Effects of a Financial Work Incentive on Employment and Income

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SRDC
SOCIAL
RESEARCH AND
DEMONSTRATION
CORPORATION

June 2000

The Self-Sufficiency Project is sponsored by Human Resources Development Canada

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Other SRDC reports on the Self-Sufficiency Project (SSP):

> *Creating an Alternative to Welfare: First-Year Findings on the Implementation, Welfare Impacts, and Costs of the Self-Sufficiency Project.* Tod Mijanovich and David Long. December 1995.
>
> *The Struggle for Self-Sufficiency: Participants in the Self-Sufficiency Project Talk About Work, Welfare, and Their Futures.* Wendy Bancroft and Sheila Currie Vernon. December 1995.
>
> *Do Financial Incentives Encourage Welfare Recipients to Work? Initial 18-Month Findings from the Self-Sufficiency Project.* David Card and Philip K. Robins. February 1996.
>
> *When Work Pays Better Than Welfare: A Summary of the Self-Sufficiency Project's Implementation, Focus Group, and Initial 18-Month Impact Reports.* March 1996.
>
> *How Important Are "Entry Effects" in Financial Incentive Programs for Welfare Recipients? Experimental Evidence from the Self-Sufficiency Project.* David Card, Philip K. Robins, and Winston Lin. August 1997.
>
> *Do Work Incentives Have Unintended Consequences? Measuring "Entry Effects" in the Self-Sufficiency Project.* Gordon Berlin, Wendy Bancroft, David Card, Winston Lin, and Philip K. Robins. March 1998.
>
> *When Financial Incentives Encourage Work: Complete 18-Month Findings from the Self-Sufficiency Project.* Winston Lin, Philip K. Robins, David Card, Kristen Harknett, and Susanna Lui-Gurr. September 1998.
>
> *Does SSP Plus Increase Employment? The Effect of Adding Services to the Self-Sufficiency Project's Financial Incentives.* Gail Quets, Philip K. Robins, Elsie C. Pan, Charles Michalopoulos, and David Card. May 1999.
>
> *When Financial Work Incentives Pay for Themselves: Early Findings from the Self-Sufficiency Project's Applicant Study.* Charles Michalopoulos, Philip K. Robins, and David Card. May 1999.
>
> *The Self-Sufficiency Project at 36 Months: Effects on Children of a Program that Increased Parental Employment and Income.* Pamela Morris and Charles Michalopoulos. June 2000.

SSP is funded under a contributions agreement with HRDC. The findings and conclusions stated in this report do not necessarily represent the official positions or policies of HRDC.

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104-02984/

Executive Summary

For decades, policy-makers have struggled to find policies that encourage welfare recipients to work but preserve an adequate safety net. During the 1990s, many Canadian provinces introduced policies to encourage work by reducing basic assistance levels, instituting programs that provided work experience, or imposing sanctions on able-bodied recipients who did not look for work. In 1996, the block fund Canada Health and Social Transfer program provided provinces with greater flexibility in designing their programs, and provinces responded by stepping up their efforts. While a number of strategies have been found to encourage welfare recipients to work, people who move from welfare to work often end up no better off financially, because their increased earnings are offset by reduced amounts of public assistance.

The Self-Sufficiency Project (SSP) meets this challenge head-on. Conceived and funded by Human Resources Development Canada (HRDC), SSP is a research and demonstration project to test a policy innovation that makes work pay better than welfare. Managed by the Social Research and Demonstration Corporation (SRDC), and evaluated by the Manpower Demonstration Research Corporation (MDRC) and SRDC, SSP was run in New Brunswick and the lower mainland of British Columbia from November 1992 to December 1999. SSP offered a *temporary earnings supplement* to selected single-parent, long-term Income Assistance (IA) recipients, about 95 percent of them women. The earnings supplement was a monthly cash payment available to single parents who had been on Income Assistance for at least one year and who left Income Assistance for full-time work within a year of entering the SSP program. The supplement was paid on top of earnings from employment for up to three continuous years, as long as the person continued to work full time and remained off Income Assistance. While collecting the supplement, an eligible single parent received an immediate payoff from work; in most cases, her total income before taxes was about twice her earnings. Key features of the supplement offer are provided in the accompanying text box.

To measure the effects of its financial incentive, SSP was designed as a social experiment using a rigorous, random-assignment research design. In the main SSP study, the subject of this report, a group of 5,686 single parents in New Brunswick and the lower mainland of British Columbia who had been on Income Assistance for at least a year were selected at random from the IA rolls. One-half of these people were randomly assigned to a *program group* and offered the SSP supplement, while the remainder formed a *control group*. Because the two groups were similar in all respects except whether they were allowed to participate in the program, the "impact" or effect of SSP can be measured by the difference between the program and control groups' subsequent experiences. An earlier report (Lin et al., 1998) described the implementation of the program and the impacts of the program through 18 months, and found that SSP had doubled full-time employment and substantially increased income.

The current report updates many of the findings of the prior report by describing the impacts of the supplement offer, using information for 4,961 single parents who completed a survey (the "36-month interview") about three years after they entered the study. The report also examines whether the supplement offer resulted in wage growth and stable employment. A companion report (Morris and Michalopoulos, 2000) examines the effects of SSP on the children of the parents studied in this report.

Key Features of the SSP Earnings Supplement

- **Full-time work requirement**. Supplement payments were made only to eligible single parents who worked at least 30 hours per week and who left Income Assistance.
- **Substantial financial incentive**. The supplement equalled half the difference between a participant's earnings and an "earnings benchmark." During the first year of operations, the benchmark was $30,000 in New Brunswick and $37,000 in British Columbia. The benchmark was adjusted over time to reflect changes in the cost of living and the generosity of Income Assistance. The supplement was reduced by 50 cents for every dollar of increased earnings. Unearned income (such as child support), earnings of other family members, and number of children did not affect the amount of the supplement. The supplement roughly doubled the earnings of many low-wage workers (before taxes and work-related expenses).
- **One year to take advantage of the offer**. A person could sign up for the supplement if she found full-time work within the year after random assignment.[1] If she did not sign up during that year, she could never receive the supplement.
- **Three-year time limit on supplement receipt**. A person could collect the supplement for up to three calendar years from the time she began receiving it, as long as she was working full time and not receiving Income Assistance. No one was required to participate in the supplement program, however. People could decide at any time to return to Income Assistance, as long as they met the eligibility requirements for Income Assistance.

Members of the program group were allowed to qualify for the supplement during the year after random assignment and could receive the supplement for three years after qualifying. A person who found full-time work immediately could consequently receive the supplement until the end of the third year after random assignment, around the time that she completed the 36-month interview. A person who did not find full-time work until the end of the first year, on the other hand, could receive the supplement until the end of the fourth year after random assignment, a full year after completing the 36-month interview. Since few people qualified immediately for the supplement, the 36-month period studied in this report ended too early to determine whether SSP continued to affect families after their three years of eligibility for the supplement ended. A future report will address this critical issue.

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[1] Feminine pronouns are used in this report because more than 95 percent of single parents who have received Income Assistance for at least a year — the target group for SSP — are women.

THE FINDINGS IN BRIEF

Because the evaluation of SSP assigned people to the program and control groups at random, the impact or effect of the supplement offer is measured as the difference in employment, earnings, income, and other outcomes between the two groups. These comparisons indicate that SSP increased full-time employment, earnings, and income, and reduced poverty through the three years following each person's date of random assignment.

- **SSP increased full-time employment and earnings**. To receive the earnings supplement, people had to begin working full time (30 or more hours per week) during the first year after random assignment. By the beginning of the second year, 35 percent of the program group had received at least one supplement payment and the program had doubled full-time employment; its effects on full-time employment continued to be strong through the end of the third year. As a result, SSP increased the average person's earnings by about $2,700 or 30 percent over a three-year period. Since only about one-third of the program group ever received the supplement, this suggests that the program increased earnings by about $8,000 over three years for the average person who received the supplement.

- **SSP reduced use of Income Assistance but increased use of cash transfer payments**. The rules of SSP prohibited people from simultaneously receiving the earnings supplement and Income Assistance. As a result, the program reduced payments from Income Assistance by about $2,500 per family in the program group. When people left Income Assistance to receive the earnings supplement, however, they replaced their IA payments with SSP supplement payments. Over the three-year period, the families in the program group received about $5,500 on average from the earnings supplement.

- **SSP reduced poverty**. Because it increased earnings *and* increased cash transfer payments, SSP also increased income and substantially reduced poverty. Over the three-year period, the average member of the program group had about $5,500 more in income from earnings, IA payments, and earnings supplements than the average member of the control group. Three years after people had entered the evaluation, SSP had reduced the proportion with income below Statistics Canada's low income cut-off by nearly 10 percentage points.

- **Most employment resulting from SSP was stable**. The employment behaviour of the control group implies that most people who responded to the supplement offer would not have worked otherwise. They might therefore have been expected to lose their full-time jobs relatively quickly. In general, this did not happen. For every three people who worked full time because of the supplement offer, two people stayed employed for at least a year.

- **For people who responded to SSP's offer, wages grew over time**. Most of the jobs that people took because of the supplement offer resulted in higher wages over time, and about half resulted in wage growth of more than 10 percent over two years. Although SSP encouraged a group of less-skilled people to go to work, wages grew as much for people who worked because of the supplement offer as for the generally more-skilled people who would have worked without the supplement offer. This is an encouraging finding. An increase in wages sufficient to make work pay better than welfare even after the supplement is no longer available might deter people from reapplying for welfare and result in long-term effects from the supplement offer.

IMPACTS ON EMPLOYMENT, EARNINGS, INCOME ASSISTANCE, AND SSP SUPPLEMENT PAYMENTS

- **SSP increased employment throughout the three-year period. The program's effects grew steadily in the first year after random assignment, and the program had doubled full-time employment by the beginning of the second year. The effects on full-time employment remained strong throughout, but declined somewhat from their peak until the end of the follow-up period.**

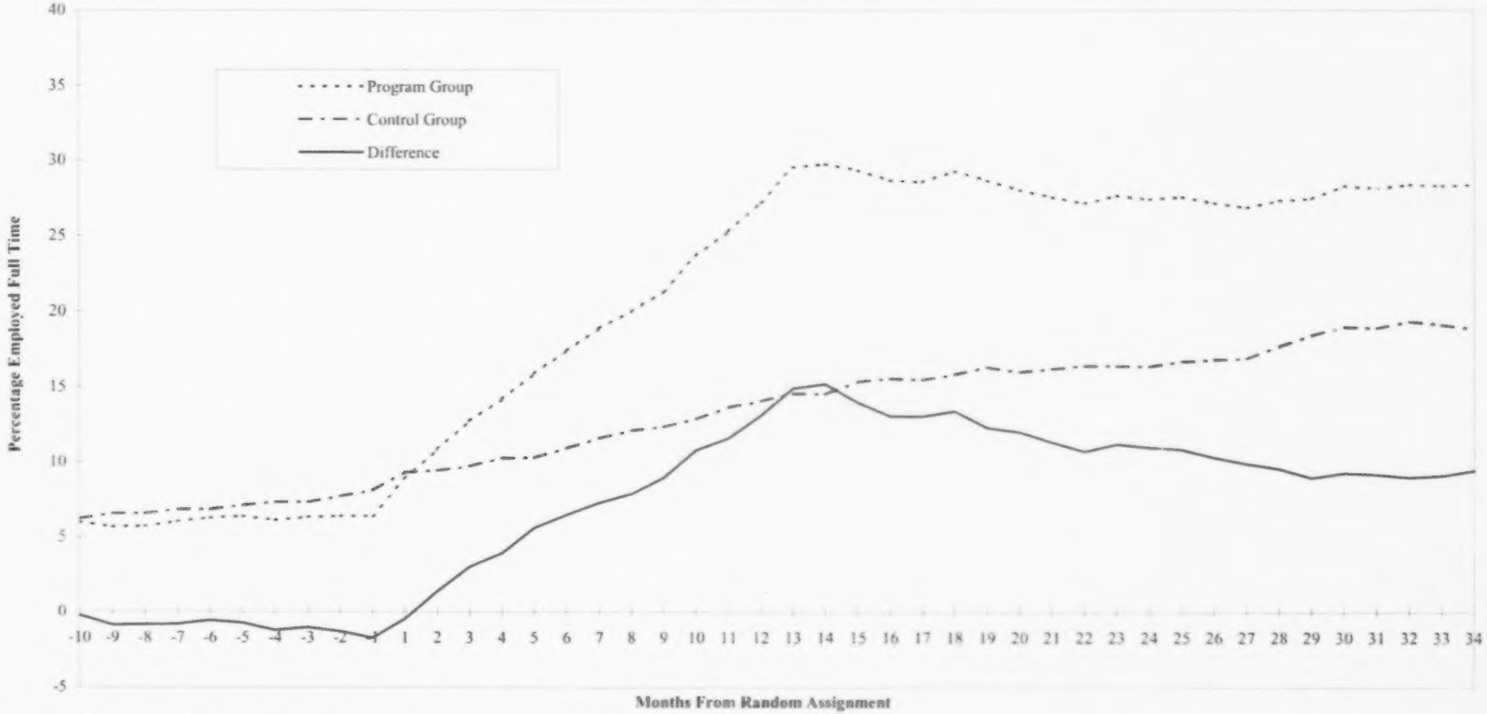
Figure ES.1 tells much of the tale of SSP. From 10 months prior to random assignment until the time of random assignment, about six to eight percent of both the control and program groups worked full time (30 hours or more per week) in any particular month. This is one indication that random assignment created similar groups.

Members of the program group could qualify for the supplement during the first year after random assignment by finding full-time work and ceasing to receive Income Assistance. During that first year, about 35 percent of the program group qualified for at least one supplement payment.

Two sets of people qualified for the supplement. Some members of the program group would have worked full time without the supplement offer and received the supplement without changing their employment behaviour. For this group, the supplement increased income and reduced poverty, but did not increase employment, earnings, or hours of work. It is impossible to know which members of the program group are in this category, but their characteristics can be inferred from members of the control group who worked full time. This is a critical benefit of using random assignment: the control group is similar to the program group in every way except that its members were not offered the supplement. Other members of the program group began working full time *because of the supplement offer*. They are responsible for the impact of SSP on full-time employment. Several sections of this report discuss outcomes that were inferred for this group by comparing members of the program group who worked full time with members of the control group who worked full time.

Figure ES.1 indicates how much SSP affected full-time employment, as well as how the impacts of SSP were determined more generally. During the year after entering the study, the proportion of the program group working full time gradually climbed, from about 8 percent at the time of random assignment to about 29 percent at the beginning of the second year. During the same period, full-time employment for the control group also increased, but more gradually, from about 8 percent at the time of random assignment to about 14 percent at the beginning of the second year. The difference between the two groups — 15 percentage points — is a measure of SSP's impact on full-time employment. According to Figure ES.1, SSP's impact on full-time employment gradually increased during the first year. By the beginning of the second year, SSP had doubled full-time employment.

Figure ES.1: Percentage Employed Full Time, by Months From Random Assignment



Sources: Calculations from baseline survey data, and 18-month and 36-month follow-up survey data.

Note: Information on IA and SSP payments is available for 36 months even though information on employment and earnings is available for only 34 months. The difference stems from the different sources of information. While the survey — the source of information on employment and earnings — contains only 34 months of follow-up for all sample members, administrative records have 36 months of information for all sample members.

People who did not qualify for a supplement payment in the first year lost the chance to receive it in the future. SSP therefore ceased to provide an incentive to members of the program group who did not qualify for the supplement during that first year. On the other hand, more and more members of the control group began working full time. As a result, SSP's impact on full-time employment declined slightly in the second and third years. By the end of the follow-up period, about 28 percent of the program group and 19 percent of the control group were working full time. Thus, SSP's impact on full-time employment had declined but remained a solid nine percentage points.

- **SSP increased full-time employment mainly by persuading people who would not have worked without the supplement to work full time.**

Table ES.1 summarizes the average monthly impacts of SSP on employment, earnings, and cash transfers for each of the three years in the follow-up period covered by this report.

The first panel of the table repeats the lesson learned from Figure ES.1. In the first year after random assignment, SSP began to increase full-time employment; about 18 percent of the program group worked full time in an average month, compared with 11 percent of the control group. Its impact peaked in the second year, when 28 percent of the program group worked full time in an average month, compared with 16 percent of the control group. During the third year, the impact on full-time employment remained substantial: nearly 28 percent of the program group worked full time in an average month, compared with 18 percent of the control group, for an impact of nearly 10 percentage points.

SSP can increase full-time employment in two ways: it can convince people who would have worked part time anyway to work a bit more, or it can convince people who would not have worked at all to work full time. Although both occurred, the main effect was the second one. During the second year after random assignment, as is shown in the second and third panels of the table, SSP reduced part-time employment by about 3 percentage points in an average month, but it increased employment overall by nearly 10 percentage points. Thus, three out of four people who increased their work effort to receive the supplement would not have worked at all without the supplement offer, and one out of four would have worked part time.

- **Since SSP increased employment and full-time employment, it also increased earnings.**

In the first year after random assignment, as people began moving to full-time work, the program increased earnings by $584 per sample member. In the second year, when the program's impact on full-time employment was at its peak, its impact on earnings also peaked, at $1,254 per sample member. The impact on earnings declined somewhat in the third year, primarily because earnings for the control group continued to increase while earnings for the program group remained steady. Despite this decline, the impact on earnings remained quite high at $865 per person. Over the three-year period, therefore, SSP had increased earnings by about $2,700 per person, so that earnings of the program group were about one-third higher than for the control group.

Table ES.1: SSP Impacts on Employment, Earnings, Income Assistance, and Cash Transfers

Outcome	Program Group	Control Group	Difference (Impact)
Monthly full-time employment rate (%)[a]			
Year 1	18.0	11.4	6.6 ***
Year 2	28.5	15.8	12.7 ***
Year 3	27.7	18.1	9.6 ***
Monthly part-time employment rate (%)			
Year 1	11.6	13.9	-2.3 ***
Year 2	11.6	14.6	-3.0 ***
Year 3	12.0	14.4	-2.4 ***
Monthly employment rate (%)			
Year 1	29.7	25.3	4.4 ***
Year 2	40.1	30.4	9.8 ***
Year 3	39.7	32.5	7.2 ***
Average earnings ($)			
Year 1	2,793	2,208	584 ***
Year 2	4,451	3,198	1,254 ***
Year 3	4,717	3,852	865 ***
Monthly rate of IA receipt (%)			
Year 1	85.4	91.7	-6.3 ***
Year 2	65.9	78.9	-12.9 ***
Year 3	61.3	70.7	-9.4 ***
Average IA payments ($)			
Year 1	9,075	9,503	-428 ***
Year 2	7,033	8,271	-1,238 ***
Year 3	6,207	7,113	-906 ***
Monthly rate of receipt of IA or SSP (%)			
Year 1	94.0	91.7	2.4 ***
Year 2	86.5	78.9	7.6 ***
Year 3	80.5	70.7	9.8 ***
Average Payments from IA and SSP ($)			
Year 1	10,209	9,503	706 ***
Year 2	9,344	8,271	1,073 ***
Year 3	8,180	7,113	1,066 ***
Sample size (total = 4,961)	**2,503**	**2,458**	

Sources: Calculations from IA administrative records, payment records from SSP's Program Management Information System, baseline survey, and 18-month and 36-month follow-up surveys.

Notes: The estimates for each year, with the exception of earnings estimates, are calculated by averaging the four quarterly estimates. Average monthly earnings are calculated by dividing total yearly earnings by total number of months in which information is not missing.

Sample sizes vary for individual measures because of missing values.

Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a] "Full-time employment" is defined as working 30 or more hours in at least one week during the month.

- **SSP reduced use of the IA program as well as IA amounts. Most people who left Income Assistance because of the supplement offer, however, did so to receive the earnings supplement. As a result, the program increased total use of cash transfer programs and increased the amount of cash transfers received.**

People could receive the earnings supplement only while they were not receiving Income Assistance. As a result, the program reduced use of the IA program when it increased full-time employment. In the second year, about 79 percent of the control group received Income Assistance in a typical month, compared with 66 percent of the program group. In the third year, the impact had diminished slightly, as more members of the control group stopped receiving Income Assistance. During that third year, the program reduced use of Income Assistance from about 71 percent of the control group to about 61 percent of the program group in an average month. Over the three-year period, the program also reduced IA payment amounts by nearly $2,600 per family in the program group.

Many members of the program group began receiving the SSP earnings supplement when they stopped receiving Income Assistance. In the second year after random assignment, when the program's impact on full-time employment peaked, SSP also increased payments from either IA or SSP supplements by $1,073 per family in the program group. Over the three-year period, the program increased combined payments from Income Assistance and SSP supplements by $2,845. Since the program also increased earnings by about $2,700 on average, this means it increased income from earnings and cash transfer payments by about $5,500 per member of the program group.

IMPACTS ON INCOME AND POVERTY IN THE LAST SIX MONTHS OF THE FOLLOW-UP PERIOD

- **People who received the supplement had to pay income tax on the earnings supplement and both income and payroll taxes on their earnings. Therefore, the federal and provincial governments collected more taxes.**

According to Table ES.2, the federal and provincial governments collected $33 more per month on average from members of the program group than from members of the control group during the last six months of the follow-up period. Thus, the extra transfer payments coming through the SSP supplement were partially offset by higher taxes. Nevertheless, on net, the government spent $56 more per month per member of the program group on higher transfer payments associated with SSP.

Table ES.2: SSP Impacts on Monthly Income and Net Transfer Payments in the Six Months Prior to the 36-Month Follow-Up Interview

Outcome	Program Group	Control Group	Difference (Impact)
Total individual income before taxes ($)	1,395	1,259	136 ***
Projected income taxes ($)[a]	94	61	33 ***
Net transfer payments ($)[b]	814	757	56 ***
Total individual income net of taxes ($)	1,301	1,198	103 ***
Total family income ($)[c]	1,585	1,432	153 ***
Percentage with income below the low income cut-off[d]	76.8	86.2	-9.4 ***
Sample size (total = 4,961)	**2,503**	**2,458**	

Sources: Calculations from 36-month applicant follow-up survey data, IA administrative records, and payments from SSP's Program Management Information System.

Notes: Sample sizes vary for individual measures because of missing values. This may cause slight discrepancies in sums and differences.

Two-tailed t-tests were applied to differences in outcomes between the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a] Includes projected Employment Insurance premiums, Canada Pension Plan premiums deducted at payroll, and projected income taxes. Payroll deductions and income taxes were projected from federal and provincial tax schedules and data on earned and unearned income and SSP supplement payments; the actual taxes paid by sample members may differ from these projections.

[b] Includes public expenditures on SSP, IA payments, and other transfers, net of income tax revenue.

[c] Family income is measured by the sum of the sample member's income plus the labour earnings of any other members in that person's family.

[d] Calculated by comparing annualized family income with the low income cut-off defined by Statistics Canada or the sample member's location and family size.

- **Every $1 increase in government cash transfer payments increased monthly income by $2.**

When the increased earnings and the income from SSP supplement payments are added together and the reductions in Income Assistance and the taxes incurred are subtracted, members of the program group had $103 more in income each month than members of the control group. Thus, after-tax income increased nearly twice as much as government spending.

- **By increasing income, SSP also substantially reduced poverty.**

Poverty among long-term welfare recipients is extremely high. It is not surprising, therefore, that the extra income resulting from SSP substantially reduced the number of families with income below Statistics Canada's low income cut-off. While about 86 percent of the control group had low income in the six months prior to the 36-month interview, only about 77 percent of the program group had low income, implying that the program reduced poverty by more than nine percentage points.

- **Much of the extra income was spent on food, clothing, and rent, or used to increase savings.**

Members of the program group spent $49 more per month than members of the control group on food, clothing, rent, and child care (not shown in Table ES.2). This figure implies that members of the program group spent nearly one-half of their additional income on these items.

In addition to increasing spending on necessities, members of the program group might have been able to use their extra income to build up savings or pay down debt. Average savings for both research groups was about $500, but the program group was slightly more likely to have savings exceeding $500. The extra income was not used to pay down debt, however.

IMPACTS ON OTHER OUTCOMES

- **Most of the people who worked full time because of the supplement offer stayed employed for at least a year.**

When programs like SSP increase employment, they typically do it by "digging deeper" into the caseload and encouraging work among a more disadvantaged group of people. This group typically has trouble staying employed when they do find work, either because they find short-term jobs or because they succumb to barriers that made it difficult for them to work in the first place. Nonetheless, most of the extra employment resulting from the supplement offer was stable employment. In particular, SSP doubled the number of people who worked full time for a year or longer, from 10.4 percent of the control group to 20.9 percent of the program group. Since the program increased the proportion of the program group who ever worked full time in the first 18 months by 15 percentage points, this suggests that, for every three additional people who worked full time, two additional people worked full time for at least a year.

- **Most of the extra employment resulting from the SSP supplement offer paid wages close to the provincial minimum wages.**

Programs like SSP may encourage people to accept low-wage jobs, either because they do not have the skills needed to command higher wages or because they are willing to accept low wages in order to receive the supplement. There may be reason to be concerned. All of the extra jobs that people took because of SSP near the end of the follow-up period paid within $2 of the provincial minimum wages. Moreover, the program's impact on employment that paid within a dollar of the minimum wage was more than twice as large as its impact on employment that paid between $1 and $2 more than the minimum wage.

- **Although most of the jobs that people took because of the supplement offer paid close to the minimum wage, wages grew for those who did work full time. Moreover, people who went to work full time because of the supplement offer increased their wages as much as people who would have worked full time without the supplement.**

One of the initial hopes underlying SSP was that people who went to work full time would gain valuable work experience that would allow them to increase their hourly wages. If wages increased enough, work might continue to pay better than welfare after the supplement was no longer available, and people would be deterred from reapplying for welfare. In fact, wages did increase for people who responded to the supplement offer. From the end of the first year of follow-up until the end of the third year, wages for members of the control group who worked grew by 12.7 percent on average. During the same period, wages for people who went to work because of the supplement offer grew by 11.7 percent on average. While this wage growth by itself might not encourage many people to continue working full time without the supplement, it might be sufficient if going to work has created more positive attitudes about work or if child care costs are less of a barrier to work because the children in these families have grown older.

This result should be interpreted with some caution. During the time that SSP operated, the minimum wage increased from $5.50 to $7.15 per hour in British Columbia and from $5.00 to $5.50 per hour in New Brunswick. Thus, SSP may have caused wage growth indirectly, by encouraging people to take minimum wage jobs when the minimum wage was increasing. In fact, wages grew quickly for the group that was most likely to take minimum wage jobs. Wages grew even more, however, for a group of higher-skilled workers who initially earned close to $10 per hour on average.

- **SSP did not affect the rate at which sample members married after random assignment, but there were small, offsetting changes in the two provinces. In New Brunswick, members of the program group were slightly more likely to have married than were members of the control group. In British Columbia, the opposite was true.**

For a variety of reasons, SSP may encourage or discourage marriage. The way the supplement was calculated may have provided a direct incentive for members of the program group to marry; supplement payments were not reduced if a partner contributed income to the family, but IA payments were. At the same time, SSP might have helped sample members meet potential partners through work. The extra income stemming from SSP might also have encouraged members of the program group to marry by alleviating their financial difficulties, by helping them pay for a wedding, by increasing their self-esteem, or by making them more attractive to potential mates. On the other hand, SSP might have discouraged marriage if increased time spent working left little time to meet and get to know potential partners. The extra income stemming from SSP may also have made it easier for people to live on one income. Finally, SSP might have encouraged some single parents to delay marriage to gain additional work experience.

Despite or because of these forces, a similar proportion of the program and control groups were married in each month of the follow-up period. The program's effect on marriage differed by province, however. Over the 36-month follow-up period in British Columbia, SSP decreased the proportion of people who were married at some point by three percentage points, from about 18 percent to about 15 percent. In contrast, in New Brunswick SSP increased the proportion who were married at some point by four percentage points, from about 21 percent to about 25 percent.

Why did SSP promote marriage in New Brunswick but discourage it in British Columbia? Differences in demographics, in SSP's impacts on employment and income, and in the marriage penalty from Income Assistance do not appear to explain the differences in impacts on marriage. One other possibility is differences in the provincial cultures. New Brunswick is relatively rural, and the majority of the population is Roman Catholic. In comparison, British Columbia is dominated by Vancouver and its suburbs, and less than 20 percent of the population is Roman Catholic. Moreover, marriage was much more common among members of the control group in New Brunswick than in British Columbia. Thus, differences in marital norms in the provinces may have played a role in translating the program's effects on employment and earnings into effects on marriage.

POLICY IMPLICATIONS

When structured properly, programs with financial incentives can be triple winners, encouraging full-time work, increasing income, and reducing poverty. At the end of the three-year follow-up period, SSP increased full-time employment by nine percentage points, reduced poverty by nine percentage points, and increased individual after-tax income by more than $100 per month. In comparison, programs that encourage welfare recipients to look for work or to build skills without providing financial incentives typically increase employment but do not increase income and do not reduce poverty. Programs that supplement the earnings of welfare recipients who work part time also can encourage work and increase income, but by themselves such incentives typically have smaller effects than SSP on earnings and income.

Financial incentives are not the answer for all long-term recipients. About one-third of the program group worked full time and received at least one supplement payment. Two-thirds did not. Most of these parents said they were interested in the supplement payments but could not find full-time work or could not overcome various barriers to work within a year of entering the program. Programs like SSP might be even more effective when combined with other policies to help welfare recipients find work or to help them overcome barriers such as child care and transportation problems. As part of the evaluation of SSP, a small study called SSP Plus is studying the effects of adding voluntary employment services to the program's generous financial incentive. According to early findings from SSP Plus, adding services to the program's incentives allowed half of the parents to find full-time work and receive at least one supplement payment, although many of the people whom the services helped to find work lost their full-time jobs quickly.

Programs with financial incentives cost money in the short-run. Financial incentives are effective because they give people more money than welfare when they work. As a result, such programs typically cost money in the short-run. In the six months prior to the end of the follow-up period covered in this report, government expenditures on cash transfers increased by $56 per month per family in the program group. If SSP continues to increase employment even after parents can no longer receive supplement payments, however, the government will begin to recoup some of this cost. Evidence from another study in SSP indicates, moreover, that financial incentives may not cost money even in the short-run. When the supplement offer was made to new welfare recipients, SSP substantially increased employment, earnings, and income, but the government recouped through taxes and reduced IA payments all it had paid out through the supplement.

By providing a constant incentive to work, programs with financial incentives can promote stable employment and increase workers' wages. Because most welfare recipients have few skills and limited work experience, they often lose their jobs quickly when they do find work. As a result, it is difficult for them to gain work experience that will give them greater skills and higher wages. SSP's generous earnings supplement, however, provides a constant financial incentive to work, even if it means replacing a lost job. By rewarding only full-time work, SSP may also encourage people to take jobs that initially are more stable because they are full time. Because of these forces, most people who went to work because of SSP worked most of the time, and their wages increased somewhat over the follow-up period studied in this report.

The Self-Sufficiency Project at 36 Months:
Effects of a Financial Work Incentive on Employment and Income

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SRDC
SOCIAL
RESEARCH AND
DEMONSTRATION
CORPORATION

June 2000

The Self-Sufficiency Project is sponsored by Human Resources Development Canada

The Social Research and Demonstration Corporation (SRDC) is a non-profit organization created in 1992 with the support of Human Resources Development Canada (HRDC) to develop, field test, and rigorously evaluate social programs designed to improve the well-being of all Canadians, with a special concern for the effects on disadvantaged Canadians. Its mission is to provide policy-makers and practitioners with reliable evidence about what does and does not work from the perspectives of government budgets, program participants, and society as a whole. It accomplishes this mission by evaluating existing social programs and by testing new social program ideas at scale, and in multiple locations, before they become policy and are implemented on a broader basis.

Other SRDC reports on the Self-Sufficiency Project (SSP):

> *Creating an Alternative to Welfare: First-Year Findings on the Implementation, Welfare Impacts, and Costs of the Self-Sufficiency Project.* Tod Mijanovich and David Long. December 1995.
>
> *The Struggle for Self-Sufficiency: Participants in the Self-Sufficiency Project Talk About Work, Welfare, and Their Futures.* Wendy Bancroft and Sheila Currie Vernon. December 1995.
>
> *Do Financial Incentives Encourage Welfare Recipients to Work? Initial 18-Month Findings from the Self-Sufficiency Project.* David Card and Philip K. Robins. February 1996.
>
> *When Work Pays Better Than Welfare: A Summary of the Self-Sufficiency Project's Implementation, Focus Group, and Initial 18-Month Impact Reports.* March 1996.
>
> *How Important Are "Entry Effects" in Financial Incentive Programs for Welfare Recipients? Experimental Evidence from the Self-Sufficiency Project.* David Card, Philip K. Robins, and Winston Lin. August 1997.
>
> *Do Work Incentives Have Unintended Consequences? Measuring "Entry Effects" in the Self-Sufficiency Project.* Gordon Berlin, Wendy Bancroft, David Card, Winston Lin, and Philip K. Robins. March 1998.
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> *When Financial Incentives Encourage Work: Complete 18-Month Findings from the Self-Sufficiency Project.* Winston Lin, Philip K. Robins, David Card, Kristen Harknett, and Susanna Lui-Gurr. September 1998.
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> *Does SSP Plus Increase Employment? The Effect of Adding Services to the Self-Sufficiency Project's Financial Incentives.* Gail Quets, Philip K. Robins, Elsie C. Pan, Charles Michalopoulos, and David Card. May 1999.
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> *When Financial Work Incentives Pay for Themselves: Early Findings from the Self-Sufficiency Project's Applicant Study.* Charles Michalopoulos, Philip K. Robins, and David Card. May 1999.
>
> *The Self-Sufficiency Project at 36 Months: Effects on Children of a Program that Increased Parental Employment and Income.* Pamela Morris and Charles Michalopoulos. June 2000.

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Preface

This is the latest in a series of reports on the Self-Sufficiency Project. SSP is a test of a strategy to "make work pay" as a way of simultaneously addressing the problems of poverty and dependency. The participants in SSP were all single parents who had been receiving Income Assistance (IA) benefits for at least a year, and, in many cases, much longer. The program that SSP offered them was a generous, but temporary, supplement to their earnings if they went to work full time and ceased receiving Income Assistance. The goal of SSP is to see whether this form of incentive is an effective way of putting more money into the hands of poor families and, at the same time, of encouraging work as a way to achieve greater economic self-sufficiency.

The Self-Sufficiency Project is a rigorous research project that uses a random assignment evaluation design — generally accepted to be the most reliable way of measuring program impacts. This is a long-term study that, ultimately, will last 10 years from start to finish.

The opening chapters of the unfolding SSP story have been exciting. Previous reports have shown that significant numbers of single-parent, long-term IA recipients are willing and able to leave welfare for work if employment can be made a financially rewarding alternative; that SSP's short-term impacts on full-time employment and earnings are among the largest ever seen in a rigorously evaluated welfare-to-work program; and that the effects can be even larger when the program is provided to a somewhat less disadvantaged group of IA recipients or when financial incentives are offered in combination with employment services.

The results published so far have been based on what happened in the first 18 months after participants became eligible for SSP's offer of financial assistance. This report extends those results for a further 18 months. Data from a longer-term follow-up survey show that after 36 months SSP's program impacts remain substantial.

At the end of the third year of the follow-up period, 28 percent of those in the SSP program group were employed full time. This is only slightly below the peak level reached at the beginning of the second year and is nine percentage points more than the full-time employment rate of the SSP control group that was created to provide the basis for the impact evaluation. SSP is also continuing to produce a significant decrease in welfare receipt and, by increasing earnings and family incomes, is leading to a reduction in poverty.

SSP's evaluation is not limited to the economic circumstances of the single parents taking part. The project also looked at what effects SSP might have had on family functioning and on the well-being of children. These impacts, after 36 months, are presented in a companion report, *The Self-Sufficiency Project at 36 Months: Effects on Children of a Program That Increased Parental Employment and Income.*

About six months ago, the operational phase of SSP concluded when the last of its participants reached the end of the period during which they were eligible to receive earnings supplements. Longer-term program impacts will be based on a subsequent survey of participants' post-program experiences. However, we believe that the findings that SSP has produced so far are already providing policy-makers with much useful evidence to guide social policy development.

With the end of project operations and the closure of our project offices, I would like to express my thanks to our colleagues at Family Services, Saint John, and Bernard C. Vinge & Associates, who operated our SSP project offices in New Brunswick and British Columbia, and to EDS Systemhouse in Halifax, operators of the SSP payroll and management information systems. I would also like to extend a special thanks to the almost 9,000 single parents who participated in SSP over the past seven years and without whose participation this research would not have been possible.

John Greenwood
Executive Director

Acknowledgements

This report resulted from the collaboration of many people and organizations. SSP exists only because of the sponsorship and support of Human Resources Development Canada (HRDC), the program's originators. Special thanks go to Jean-Pierre Voyer and Allen Zeesman of HRDC's Applied Research Branch. The project was managed by the Social Research and Demonstration Corporation (SRDC) and evaluated by staff at the Manpower Demonstration Research Corporation (MDRC) and SRDC; those who played a role in the development of this report are included in the lists below.

The report's analyses relied on information from many people. At Statistics Canada, Richard Veevers, Ann Brown, and their staff collected and processed the survey and administrative records for this report. Sharon Manson Singer and her staff at British Columbia's Ministry of Social Development and Economic Security, and Karen Mann, Gary Baird, and their staff at Human Resources Development–New Brunswick have given valuable assistance regarding the Income Assistance system in the two provinces. For maintaining the Program Management Information System (PMIS), which keeps track of supplement payments and issues supplement cheques, we thank Melony McGuire and Trudy Megeny at EDS Systemhouse Inc. in Nova Scotia.

SSP was made an operational reality by staff people in the sites: Betty Tully, Elizabeth Dunn, and their staff at Bernard C. Vinge and Associates Ltd. in British Columbia; and Shelly Price, Linda Nelson, and their staff at Family Services Saint John, Inc. in New Brunswick.

The report was immeasurably strengthened by the excellent comments given by many reviewers. At SRDC, John Greenwood helped shape the content of the report as the director of the project. Saul Schwartz closely reviewed drafts of the report and had a strong influence on its focus, particularly the presentation of the more technical results. Susanna Lui-Gurr reviewed the report and provided valuation information on the policy environment and economic conditions in British Columbia and New Brunswick.

At MDRC, Gordon Berlin, Howard Bloom, and Judith Gueron reviewed several drafts and helped us sharpen the analysis and presentation. The report also benefited from comments from external advisors on MDRC's Income Support Studies Committee: Gary Burtless, David Ellwood, Rebecca Blank, Robert Reischauer, Henry Aaron, Larry Aber, Lindsay Chase-Landsdale, Mark Greenberg, Robert Solow, and Hiro Yoshikawa.

Finally, the report could not have been produced without the invaluable support of many others at MDRC. Martey Dodoo was responsible for creation of the data files, with the help of Kara Balemian, Colleen Parker, and Ying Lei, who was also responsible for most of the statistical programming underlying the report. Elsie Pan performed analyses related to attitudinal outcomes. Bryan Ricchetti assisted with statistical programming, co-ordinated document production, created tables and figures, and checked the accuracy of the exhibits and text, with the assistance of Nkem Dike. Nina Gunzenhauser edited the report with the assistance of Robert Weber, and Stephanie Cowell did the word processing.

The Authors

Chapter 1:
The Self-Sufficiency Project

Welfare. The very word evokes a variety of often contradictory images and reactions. Those in need of assistance are grateful for the support it provides, but they often feel stigmatized by their reliance on welfare and aspire to a higher standard of living. Taxpayers and legislators recognize Income Assistance (IA) as a necessary part of the social safety net, but they are troubled by the possibility that the system encourages dependence and discourages work effort.

For several decades, policy-makers have tried to design programs that provide an adequate safety net while promoting work. Programs such as Income Assistance pit one of these objectives against the other; any increase in the generosity of the program directly reduces the incentives to work and leave the program. Policies that help welfare recipients find jobs are often successful, but people who move from welfare to work often end up no better off financially because their increased earnings are offset by reduced amounts of public assistance.

The Self-Sufficiency Project (SSP) meets this challenge head-on. SSP is a research and demonstration project designed to test a policy innovation that makes work pay better than welfare. Conceived and funded by Human Resources Development Canada (HRDC), managed by the Social Research and Demonstration Corporation (SRDC), and evaluated by the Manpower Demonstration Research Corporation (MDRC) and SRDC, SSP offered a *temporary earnings supplement* to selected long-term IA recipients in British Columbia and New Brunswick. The earnings supplement was a monthly cash payment available to single parents who had been on Income Assistance for at least one year and who left Income Assistance for full-time work. The supplement was paid on top of earnings from employment for up to three years, as long as the person continued to work full time and remained off Income Assistance. While collecting the supplement, the single parent received an immediate payoff from work; for a person working full time at the minimum wage, total income before taxes was about twice her earnings.[1]

To measure the effects of its financial incentive, SSP was designed as a social experiment using a rigorous, random-assignment research design. In the SSP recipient study,[2] the subject of this report, a group of about 6,000 single parents in British Columbia and New Brunswick who had been on Income Assistance for at least a year were selected at random from the IA rolls. One-half of these people were randomly assigned to a program group and offered the SSP supplement, while the remainder formed a control group. The current report describes the impacts of the supplement offer through three years after random assignment. Throughout this period, SSP had substantial effects. In comparison with the control group, the program group had higher employment and earnings, lower IA participation, and lower rates of poverty.[3]

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[1] Feminine pronouns are used in this report because more than 95 percent of single parents who have received Income Assistance for at least a year — the target group for SSP — are women.

[2] The recipient study is so called to distinguish it from a sub-study of new applicants to welfare, described later in this chapter.

Members of the program group were allowed to qualify for the supplement during the year after random assignment and could receive the supplement for three years after qualifying. A person who found full-time work immediately could consequently receive the supplement until the end of the third year after random assignment, around the time that she completed the 36-month interview. A person who did not find full-time work until the end of the first year, on the other hand, could receive the supplement until the end of the fourth year after random assignment, a full year after completing the 36-month interview. Since few people qualified immediately for the supplement, the 36-month period studied in this report ended too early to determine whether SSP continued to affect families after their three years of eligibility for the supplement ended. A future report will address this critical issue.

The current report attempts to preview SSP's longer-term effects, however, by looking at four related issues — wage progression, job retention, marital status, and attitudes toward work. In each regard, there may be reason for cautious optimism. Single parents who responded to SSP's supplement offer by going to work increased their wages by about five percent per year on average. They were generally able to find stable full-time employment, and their attitudes toward work became somewhat more favourable. Finally, a small difference in rates of marriage emerged in both provinces, though the program may have increased marriage in New Brunswick and decreased marriage in British Columbia. Although each of these changes has been modest, it is possible that their combined effect will mean that members of the program group will continue to work more and use welfare less than members of the control group even after they can no longer receive the SSP supplements.

Because SSP increased income, it also allowed families to spend more on necessities such as food and shelter. By alleviating the financial burdens of these parents, the extra income may have reduced their feelings of stress and allowed them to be better parents. On the other hand, SSP encouraged parents to work full time, which may mean they spent less time with their children, especially children too young to go to school. For these and other reasons, SSP may have had an indirect effect on the children of the IA recipients who were offered its supplement. A companion report (Morris and Michalopoulos, 2000) explores this issue by examining whether children in SSP's program group fared better in school, exhibited better behaviour, and were healthier than children in the control group.

---

[3] Results for an 18-month period were reported in Lin et al., 1998 and Card and Robins, 1996. In addition, earlier reports by Mijanovich and Long, 1995, Bancroft and Vernon, 1995, and Lui-Gurr, Vernon, and Mijanovich, 1994, examined the institutional structure of the program, operational issues confronted by program staff, and the way SSP is experienced and used by eligible single parents.

AN OVERVIEW OF THE SSP PROJECT

The SSP Incentive

As has been noted, SSP offered long-term welfare recipients a financial incentive to encourage them to leave welfare for work. The following text box provides details of this financial incentive.

Key Features of the Earnings Supplement

- **Full-time work requirement**. Supplement payments were made only to eligible single parents who worked full time (an average of at least 30 hours per week over a four-week or monthly accounting period, whether in one or more jobs) and who left Income Assistance.

- **Substantial financial incentive**. The supplement was calculated as half the difference between a participant's earnings from employment and an "earnings benchmark" set by SSP for each province. The benchmark for each province was set at a level that would make full-time work pay better than Income Assistance for most recipients. During the first year of operations, the benchmark was $30,000 in New Brunswick and $37,000 in British Columbia. The benchmark was adjusted over time to reflect changes in the cost of living and generosity of Income Assistance. The supplement was reduced by 50 cents for every dollar of increased earnings. Unearned income (such as child support), earnings of other family members, and number of children did not affect the amount of the supplement. The supplement roughly doubled the earnings of many low-wage workers (before taxes and work-related expenses).

- **Targeted at long-term recipients**. Eligibility for the supplement was limited to long-term welfare recipients (with at least one year of IA receipt). Since participants were chosen for the study only if they met this criterion, all members of the program group were eligible to take up the supplement offer when they entered the study.

- **One year to take advantage of the offer**. A person could sign up for the supplement if she found full-time work within one year after random assignment. If she did not sign up during the one-year take-up window, however, she could never receive the supplement.

- **Three-year time limit on supplement receipt**. A person could collect the supplement for up to three calendar years from the time she began receiving it, as long as she was working full time and not receiving Income Assistance.

- **Voluntary alternative to welfare**. People could not receive IA payments while receiving the supplement. No one was required to participate in the supplement program, however. After beginning supplement receipt, people could decide at any time to return to Income Assistance, as long as they gave up supplement receipt and met the eligibility requirements for Income Assistance. They could also renew their supplement receipt by going back to work full time at any point during the three-year period in which they were eligible to receive the supplement.

Briefly, SSP offered a supplement to earnings, in the form of a monthly cash payment, to people who left Income Assistance and worked full time (30 or more hours per week). The restriction to full-time work was designed to limit the extent to which people received the supplement without increasing or maintaining their work effort.[4] The offer was limited to single parents who had been on Income Assistance for at least a year. This restriction targeted SSP benefits to a disadvantaged population that normally experiences difficulty in the labour market. The amount of the SSP supplement varied with individual earnings, rather than with family income, and was therefore unaffected by family composition, other family members' earnings, or unearned income.[5] Finally, supplement payments were available for a maximum of three years, and only to program group members who initiated SSP payments within 12 months of their initial eligibility.

Understanding the structure of SSP's incentive is crucial to understanding the effects of the supplement offer. In brief, SSP's financial supplement paid parents who worked 30 or more hours per week an amount equal to half the difference between their actual earnings and a target level of earnings. In 1994, target earnings were set at $30,000 in New Brunswick and $37,000 in British Columbia, although they have been adjusted slightly over time to reflect changes in the cost of living and in the generosity of Income Assistance. For example, a participant in British Columbia who worked 35 hours per week at $7 per hour earned $12,740 per year and collected an earnings supplement of $12,130 per year ($37,000 minus $12,740, divided by 2), for a total gross income of $24,870. In comparison, if that participant had decided not to work and instead to receive Income Assistance, she would have had an annual income of only $17,111. When tax obligations and tax credits are taken into account, most families had incomes $3,000 to $7,000 per year higher with the earnings supplement program than if they worked the same number of hours without the supplement.

The SSP Research Design — Random Assignment

The goal of the evaluation of SSP is to understand the *difference* that SSP's financial incentives made in the employment, earnings, income, and welfare receipt of single-parent families to whom the supplement was offered — above and beyond the incentives and services available to families who were not offered SSP. Toward this end, SSP assigned parents to two research groups. A *program group* received SSP's supplement offer; that is, these single parents were eligible to receive the supplement, provided they met the work requirements. A *control group* did not receive the offer and remained ineligible. To determine the effects of the supplement offer, outcomes for members of the two groups are compared. To make sure that differences between the groups reflect the effects of SSP's policies, individuals recruited for participation in the study were assigned to program and control groups *at random* — that is, without regard to their preferences or personal characteristics.

---

[4] Program group members could not qualify for the earnings supplement with jobs that were 100 percent government subsidized. Positions that were partially subsidized by the federal government or by the province of New Brunswick however, were permitted.

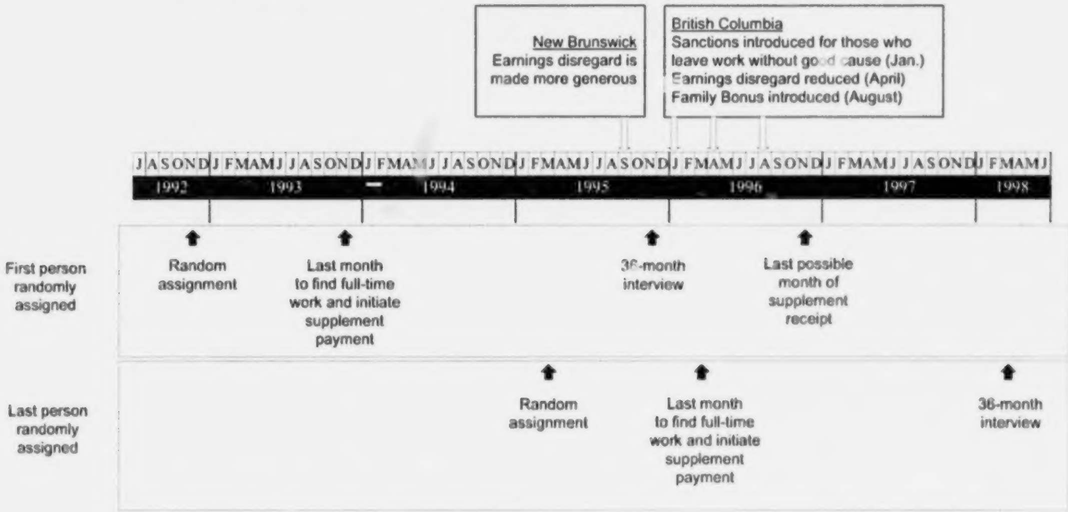
[5] Thus, the SSP supplement formula does not penalize single parents who receive child support, marry, or find a partner. Because benefits from SSP do not increase with family size, however, SSP is relatively less generous than Income Assistance for larger families.

The random assignment of SSP study participants took place between November 1992 and March 1995.[6] To participate in the study, an IA recipient had to be a single parent at least 19 years old who had received welfare in the current month and in at least 11 of the prior 12 months. Of recipients who were randomly selected and agreed to be part of the study, 2,880 were offered the earnings supplement and became the program group. An additional 2,849 were recruited for SSP and became the control group.

ECONOMIC AND POLICY CONTEXT

In British Columbia, SSP operated in the lower mainland, which includes the Vancouver metropolitan area as well as neighbouring areas to the north, south, and east. In New Brunswick, the program operated in a region covering roughly the lower third of the province, including the cities of Saint John, Moncton, and Fredericton. Figure 1.1 provides an indication of the timing of key events in the SSP study and in Canadian and provincial welfare policy.

Figure 1.1: Periods Covered by the Data Used in this Report and Important Policy Changes in British Columbia and New Brunswick


New Brunswick
Earnings disregard is made more generous
British Columbia
Sanctions introduced for those who leave work without good cause (Jan.)
Earnings disregard reduced (April)
Family Bonus introduced (August)
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J
1992
1993
1994
1995
1996
1997
1998
First person randomly assigned
Random assignment
Last month to find full-time work and initiate supplement payment
36-month interview
Last possible month of supplement receipt
Last person randomly assigned
Random assignment
Last month to find full-time work and initiate supplement payment
36-month interview

---

[6] Two other studies have examined other aspects of the impacts of SSP. As part of the recipient study, a small group of single-parent IA recipients were randomly assigned to a third group that received help in finding and keeping work in addition to the supplement. This sub-study is called SSP Plus. According to Quets et al., 1999, the addition of employment-related services to the earnings supplement increased use of the supplement by half, but impacts on employment quickly faded. Another study, called the applicant study, examined the effects of SSP for parents who had just begun receiving welfare in British Columbia. The first question addressed by this study was whether people would stay on Income Assistance for a year to become eligible for the supplement. Berlin et al., 1998, indicate that few changed their behaviour to establish eligibility for the supplement. A second question was whether the SSP supplement would increase employment, earnings, and income for this group of welfare applicants. Michalopoulos, Robins, and Card, 1999, indicate that it did, and by a substantial amount.

As shown in the figure, sample members were recruited for the study and randomly assigned between November 1992 and March 1995.[7] The period studied in this report consists of the first 36 months after random assignment (including the month of random assignment) for each sample member. For example, for the earliest sample members randomly assigned, the period studied is November 1992 to October 1995; for those who were randomly assigned last, the period studied is March 1995 to February 1998.

Income Assistance

During the years since the project was initiated, major reforms have altered the landscape of social policy in Canada. In 1996, the Canada Assistance Plan (CAP, the federal program that paid a certain percentage of the expenditures incurred by provinces for Income Assistance and social services)[8] and Established Programs Financing (EPF, a block grant for health and post-secondary education) were abolished and replaced by a block fund called the Canada Health and Social Transfer (CHST). The federal government's contributions under CHST have been substantially lower than they would have been under CAP. Faced with cutbacks in federal support, provinces have made a variety of changes such as reducing welfare benefit levels, tightening eligibility requirements, and imposing work requirements on welfare recipients.[9]

Since SSP began, both provinces have changed the financial work incentives of their IA systems by changing the "earnings disregard," a policy that determines how much a person can earn while receiving Income Assistance. In New Brunswick, the earnings disregard was increased starting in September 1995. In other words, the amount of income that a participant could obtain by combining work and welfare was increased, and SSP's supplement offer became relatively less generous in comparison with Income Assistance.[10] In British Columbia, the opposite change occurred, and the earnings disregard was reduced. As a result, the amount of income that a participant could obtain by combining work and welfare was reduced, and in British Columbia SSP provided an even greater financial work incentive than the IA system.[11]

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[7] These are the dates for which random assignment occurred in New Brunswick. In British Columbia, random assignment occurred over a shorter time, between January 1993 and February 1995.

[8] CAP paid for half of these expenditures until 1990, when payments were limited to yearly increases of no more than five percent for the three wealthiest provinces: Ontario, Alberta, and British Columbia. This was referred to as the "cap on CAP."

[9] Battle, 1997, estimates that in 1997–98 federal expenditures for CHST were 15.2 percent lower than they would have been, for the same year, under the previous CAP and EPF programs. Under CHST, the provinces have greater latitude to change welfare eligibility rules. CHST removed two of CAP's conditions for federal support: that Income Assistance be provided to all people determined to be "in need" and that people applying for or receiving assistance have access to an appeals system.

[10] Prior to September 1995, Income Assistance in New Brunswick was not reduced if earnings were less than $200 in a month, but benefits were reduced dollar-for-dollar by earnings above $200. After September 1995, a recipient could qualify for an "extended wage exemption" that disregards either $200 or 35 percent of earnings, whichever is greater, for six months, and disregards either $200 or 30 percent of earnings, whichever is greater, for an additional six months. The extended wage exemption is not automatic but is implemented at the discretion of a case manager.

[11] Until April 1996, single parents who had received Income Assistance for more than three months in British Columbia were eligible for both a "flat rate" disregard of $200 per month and, for up to 12 out of every 36 months, an "enhanced" disregard equal to 25 percent of earnings in excess of the flat rate disregard. Starting in April 1996, the flat rate disregard was eliminated, and the 25 percent disregard could be used only for 12 months once in a lifetime.

British Columbia made a number of other changes to its IA system in 1995 and 1996.[12] In January 1996, sanctions were introduced that prohibited anyone in British Columbia who quit a job without just cause from receiving Income Assistance for six months. Thus, program group members who found full-time jobs and initiated supplement payments might not be allowed to return to Income Assistance if they voluntarily left those jobs (contrary to the original design of SSP). Later in 1996, the process of applying for Income Assistance was made far more stringent; for example, applicants were required to make advance appointments and to bring various documents to their appointments, and the issuance of on-the-spot checks was eliminated. These changes would be expected to reinforce the effects of sanctions, potentially decreasing receipt of Income Assistance by supplement takers who quit (or lost) full-time jobs, and consequently increasing the program's impacts on IA receipt.

In August 1996, the province introduced a monthly "Family Bonus" of $103 per child for all low-income families with children and simultaneously reduced IA rates by the same amount, thus increasing support for working poor families and leaving total benefits for IA recipients unchanged. As a result, Family Bonus payments reduced the relative generosity of Income Assistance, lowering the incentive for both program and control group members to remain on Income Assistance.[13]

As Figure 1.1 indicates, each of these policy changes occurred long after the first people in SSP were randomly assigned. In fact, the changes in British Columbia happened after the 36-month interview for some people, shortly before their ability to receive the SSP supplement ended. For people randomly assigned near the end of the intake period, on the other hand, these policy changes had considerable ability to affect the decision to respond to the supplement offer. The change in the New Brunswick earnings disregard in particular was implemented while a fair number of people could have still taken up the supplement offer.

Economic Conditions

Over the time covered in this report, economic conditions also changed in British Columbia and New Brunswick.[14] In both provinces, overall labour market conditions improved slightly from 1992 to 1995. Nonetheless, unemployment rates remained at historically high levels, and employment of 15- to 44-year-old women actually declined in British Columbia. From 1995 to 1998, unemployment increased somewhat in New Brunswick and remained stable in British Columbia, even though the unemployment rate nationally continued to fall. However, the job prospects for women might have improved during this period because the employment rate of 15- to 44-year-old women increased in both provinces. Throughout the period, New Brunswick had a higher unemployment rate and average wage than British Columbia.

Since 1992, the minimum wage in both provinces has been increased several times, although it is also lower in New Brunswick than in British Columbia. When SSP was begun in 1992, the minimum hourly wage was $5.50 in British Columbia and $5.00 in New Brunswick. In British Columbia, the minimum wage increased gradually to $7.15 in 1998. In New Brunswick, the minimum wage increased to $5.25 at the beginning of 1996 and to $5.50 later in 1996. It is unclear how these changes in the minimum wage affected the impacts of SSP.

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[12] British Columbia and New Brunswick made a number of other changes to their IA systems in 1995, 1996, and 1997, but many of these changes had little effect on most single-parent recipients. These changes are described in Lin et al., 1998.

[13] In October of 1997, New Brunswick also changed the financial incentives to work by instituting a Child Tax Benefit and a New Brunswick Working Income Supplement. The incentives under these programs were considerably less than the incentives of the Family Bonus — up to $250 per child per year from the Child Tax Benefit and $250 per year per family from the Working Income Supplement.

[14] Additional information for the period from 1992 through 1996 is presented in Table 1.1 of Lin et al., 1998.

DATA SOURCES AND REPORT SAMPLE

To make clear the impacts of SSP, several kinds of data are used in the current report. A *baseline survey* was administered to all sample members just prior to random assignment. The survey included questions about respondents' gender, age, race/ethnicity, and other demographic characteristics; household composition and family structure; child care needs; general quality of life; employment and earnings; current income sources and amounts; and attitudes toward work and welfare. Most sample members completed *follow-up surveys* approximately 18 and 36 months after random assignment. The surveys included questions similar to those that appeared on the baseline survey — that is, questions on employment and earnings; household composition and family structure; child care use; expenditures and hardship; and current income. Finally, *administrative data* sources provided monthly information on IA and SSP supplement payments.

The program group contains 2,880 recipients; the control group contains 2,849. Of these original sample members, 4,961 completed the 36-month survey — 2,503 in the program group and 2,458 in the control group. In this report, the effects of SSP will be examined using only these sample members, a group called the *report sample*.

Table 1.1 describes the report sample at the time of random assignment. In some ways, this sample of long-term, single-parent IA recipients is fairly homogeneous. Nearly all are women. Only about one in nine has post-secondary education. Despite their history of welfare receipt, more than 9 in 10 have worked at some time in their lives. Although few were currently working at random assignment, a sizeable minority were looking for work.

Sample members also faced what appeared to be substantial barriers to full-time employment. In particular, one-quarter reported an activity-limiting physical condition, and about one in eight reported an emotional problem that limited their activity.

Every recipient selected for inclusion in SSP had to have received Income Assistance in the month they were selected, and in *at least* 11 of the prior 12 months. At random assignment, most sample members were in the midst of a considerably longer spell of IA receipt. Almost 80 percent had been receiving Income Assistance for more than two of the previous three years, and nearly 45 percent had been receiving Income Assistance every month for three years. Although almost all sample members had worked for pay at some point in the past, more than half the report sample were neither working nor looking for work at random assignment, and less than one-quarter were actually working.

In most ways, sample members in British Columbia were similar to those in New Brunswick. They were about equally likely to be working, to have graduated from high school, and to have only one child at baseline, and about equal proportions reported physical and emotional problems.

In some key ways, however, the two samples were very different. Nearly half in New Brunswick had been on welfare continuously for the prior three years, while more than one-fourth in British Columbia had been on for less than two of the prior three years. Nearly one-quarter of the sample in British Columbia had been born outside of Canada, but few in New Brunswick had been born elsewhere.

Table 1.1: Selected Baseline Characteristics by Research Group for 36-Month Survey Respondents

Baseline Characteristics	Report Sample	British Columbia	New Brunswick
Recent welfare history			
Number of months on IA prior to random assignment (%)			
10-23	24.0	28.9	18.9
24-35	33.4	34.6	32.2
All 36	42.6	36.5	48.9
Average IA payment prior to random assignment ($)	854	1,022	679
Work history and labour force status			
Ever worked for pay (%)	94.7	95.3	94.1
Average years worked	7.4	8.1	6.6
Labour force status at baseline (%)			
Employed 30 hours/week or more	6.4	6.3	6.5
Employed fewer than 30 hours/week	13.2	12.7	13.8
Looking for work, not employed	22.4	22.2	22.6
Neither employed nor looking for work	58.0	58.8	57.0
Personal characteristics (%)			
Female	95.6	95.6	95.7
Age 19-24	22.1	18.6	25.8
Less than high school education	53.6	53.3	53.8
Completed high school, no post-secondary education	35.2	33.8	36.6
Some post-secondary education	11.3	12.9	9.5
First Nation ancestry	9.0	11.5	6.4
Not born in Canada	13.3	23.4	2.8
Reported physical problem[a]	25.2	25.9	24.5
Reported emotional problem[b]	7.6	8.5	6.7
Family structure (%)			
Number of children under age 19			
1	54.0	49.5	58.7
2	32.2	33.8	30.5
3 or more	13.8	16.7	10.7
Never married	48.7	43.5	54.1
Sample size	**4,961**	**2,529**	**2,432**

Sources: Calculations based on baseline survey data and IA administrative records.

Notes: Sample sizes vary for individual measures because of missing values.

Rounding may cause slight discrepancies in sums and differences.

[a] Sample members are considered to have an activity-limiting physical condition if they answered yes to any of the following: "Do you have a long-term physical condition or health problem that limits you in the kind or amount of activity you can do (a) at home? (b) at school? (c) at work? (d) in other activities such as travel, sports, or leisure?" Those who were working generally did not answer the "at work" part of the question, so their classifications are based on answers to other parts. The conditions reported were not necessarily permanent. Of the sample members who reported an activity-limiting physical condition at the baseline interview, one-third indicated no such problems at the 18-month follow-up interview.

[b] Sample members are considered to have an activity-limiting emotional condition if they answered yes to any of the following: "Are you limited in the kind or amount of activity you can do because of a long-term emotional, psychological, nervous, or mental health condition or problem (a) at home? (b) at school? (c) at work? (d) in other activities such as travel, sports, or leisure?"

RESEARCH QUESTIONS

This report will address several key questions.

- Did the offer of a generous earnings supplement increase the employment, earnings, and income of long-term welfare recipients for a period of three years? Did it reduce their reliance on welfare benefits? Did it reduce poverty and hardship and increase expenditures on basic necessities such as food, clothing, and housing? These questions are addressed in Chapter 2.
- Were individuals who responded to the SSP offer able to keep their full-time jobs? By getting many program group members to work, SSP may have removed important hurdles to employment — lack of recent work experience and the costs of finding a job. Thus, SSP may continue to have impacts on employment and IA use simply because it is easy for people to keep the jobs they have already obtained. This issue is addressed in the first section of Chapter 3.
- Did wages increase with work experience? After program group members can no longer receive the supplement, they might continue to work if their wages have grown enough to make work pay better than welfare. Likewise, they might continue to work if their hours of work increase enough that they can earn more than their welfare grants. The second section of Chapter 3 examines how much wages and earnings increased through the three years of follow-up.
- Did attitudes toward work change with work experience? Even if wages and earnings did not increase more for program group members than for control group members, SSP might have lasting effects on employment if it changed the attitudes or preferences of people who started working in response to the supplement. The SSP surveys contain several pieces of information that might be relevant — attitudinal measures, questions about future work plans, and questions about the lowest hourly wage a person would accept. The third section of Chapter 3 examines the extent to which SSP changed the attitudes of program group members.
- Has SSP changed decisions about marriage? In contrast to IA benefits, an SSP recipient can receive the same supplement payment whether she is married or single. Therefore, the program may provide a financial incentive to marry. On the other hand, the increased income from SSP may give parents greater means to stay independent and single. If the supplement is affecting marriage decisions, this effect may have long-term consequences. The final section of Chapter 3 presents results for miscellaneous measures that might be affected in the intermediate term.
- What are the characteristics of people who responded to the supplement offer? The many people who received supplement payments can be divided into two hypothetical groups. One group would have worked full time even without the supplement offer; the second worked full time only because of the supplement offer. This second group is important. If SSP is to have a long-term effect on behaviour, it must affect the wages, attitudes, employment stability, and other factors for this group. Although it is impossible to observe directly which individuals changed their behaviour because of the supplement, Chapter 4 presents a plausible means of inferring the characteristics of this group, and provides an estimate of wage growth for them.

Chapter 2:
Impacts of SSP on Employment, Income Assistance, Supplement Payments, Earnings, and Income

One objective of this report is to describe the impacts of SSP on employment, income, and welfare receipt for a period extending about three years after random assignment. This chapter presents that comparison, investigating the extent to which SSP resulted in greater employment, less welfare use, and higher income for program group members compared with control group members.

SUMMARY OF FINDINGS

Because the evaluation of SSP used random assignment, it is relatively simple to assess the impact of the program. For both the program group and the control group, *outcomes* such as employment, earnings, and receipt of Income Assistance (IA) were calculated over time. The *impact* of SSP is then measured as the difference in outcomes between the two groups. According to these comparisons, SSP has been extremely successful at accomplishing its primary goals of increasing full-time employment, earnings, and income, and of reducing poverty.

- **SSP increased full-time employment**. To receive the SSP supplement, people had to begin working full time during the first year after random assignment. In that first year, about 35 percent of the program group took up the supplement, and the program had doubled full-time employment by the beginning of the second year. The program's effects on full-time employment continued to be strong through to the end of the third year.

- **SSP increased employment**. For a small number of people, SSP increased full-time employment by persuading them to increase their work effort from part time to full time. Most people who responded to the supplement offer, however, would not have worked in the absence of the supplement; these people went from not working at all to working 30 or more hours per week — a change in behaviour that many researchers and policy-makers suspected could not happen. As a result, SSP substantially increased employment as well as full-time employment.

- **SSP increased earnings**. Because it increased employment by so much, and because its incentives directly rewarded only full-time employment, SSP also increased earnings considerably. Over the three-year period, the program group earned about $2,700 more than the control group on average. Since this impact includes all members of the program group whether or not they ever received a supplement payment, it implies that SSP increased earnings by about $8,000 per person who received the supplement.

- **SSP reduced use of Income Assistance**. The rules of SSP prohibited people from qualifying for supplement payments and Income Assistance during the same month. As a result, the 35 percent of the program group who ever received the supplement also were off Income Assistance at some point. At its peak, the program reduced welfare use by about 15 percentage points. Over the three-year follow-up period, the program reduced payments from Income Assistance by about $2,500 per program group member.
- **SSP increased cash transfer payments**. When people left Income Assistance to receive the supplement, they replaced their IA payments with supplement payments. In a number of cases, they would have stopped receiving Income Assistance even without the incentive of the supplement offer. In other words, the supplement provided them with substantial cash transfers that they would not have received otherwise. Over the three-year follow-up period, the program group received about $5,000 in supplement payments on average, more than offsetting the $2,500 reduction in IA payments.
- **SSP reduced poverty**. Because it increased earnings *and* increased cash transfer payments, SSP also increased income and substantially reduced poverty. In the six months prior to the 36-month survey, the program reduced the proportion of the program group with income below Statistics Canada's low income cut-off by about nine percentage points.

SUPPLEMENT RECEIPT

The key to SSP's impacts is receipt of the supplement; the program could not have affected behaviour if no person took up its supplement offer. Figure 2.1 shows the proportion of the program group that received the supplement in each month, and therefore provides a preview of how SSP's impacts changed over time.

According to the figure, supplement receipt increased quickly throughout the first year after random assignment, peaking at about 25 percent of the program group near the beginning of the second year. This rapid increase reflects both the rules governing receipt of the supplement and the ongoing employment dynamics of long-term welfare recipients. Since people had to find full-time employment in the first year to receive the supplement, they were encouraged to take up the supplement quickly. Since many had not worked recently, however, it took them some time to find qualifying jobs.

Some people who initiated supplement payments in the first year had already stopped receiving payments by the end of the first year. According to Lin et al. (1998), 35 percent of the program group received the supplement at some point in the first year after random assignment. This means that 10 percent of the program group — the difference between the 35 percent who ever received a supplement and the 25 percent receiving it at the beginning of the second year — worked full time and received the supplement at some point but had stopped receiving the supplement by the end of the first year. In other words, about 10 percent of the program group had already lost their full-time employment.[1] As a result, it was possible for supplement receipt to have increased in the second and third years after random assignment, if people who lost the full-time jobs with which they initiated the supplement payment later returned to full-time work and if other recipients of the supplement were able to remain employed full time.

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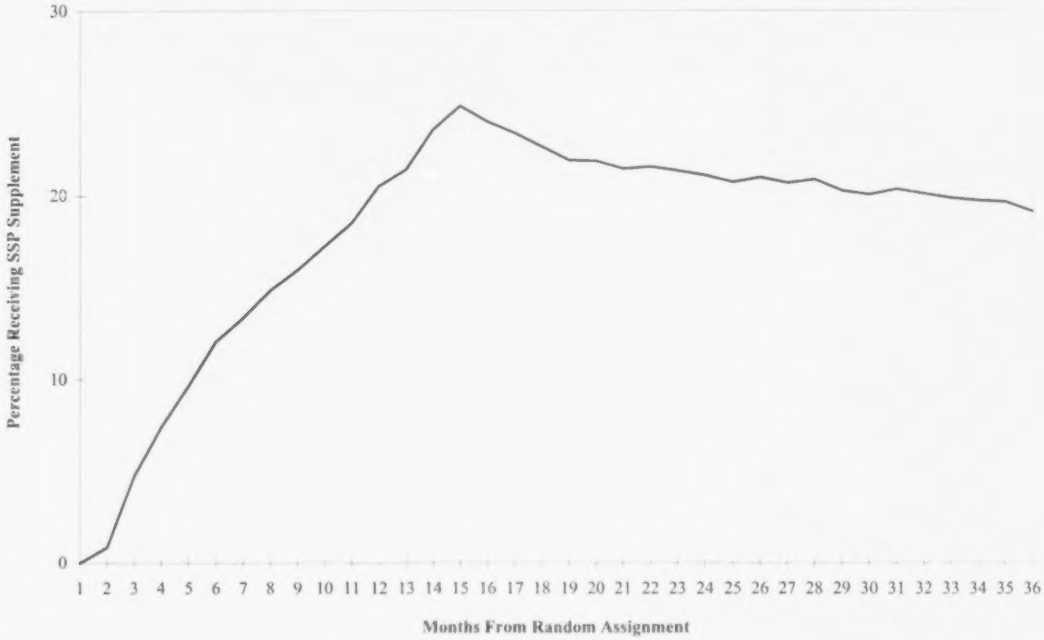
[1] It is possible that some program group members continued to work full time but stopped receiving supplement payments. Earnings for some might have become higher than the program's target earnings, and they would have received supplement

(continued)

Figure 2.1: Percentage of Program Group Receiving SSP Supplement Payments, by Month From Random Assignment



Source: Calculations from IA administrative records.

Figure 2.1 shows that this did not happen. From month 15 through the end of the third year, the proportion of the program group receiving the supplement gradually decreased to just under 20 percent. This decrease was most rapid in the first half of the second year. Since many people accepted full-time jobs near the end of the first year to initiate supplement receipt, it is possible that many lost their full-time jobs quickly. It is also possible that some people took full-time jobs solely to qualify for the supplement, intending to leave the jobs quickly but hoping to be able to work full time later in the follow-up period.

Considering the generosity of the SSP supplement offer, it might be considered surprising that only 35 percent of the program group ever initiated supplement payments. Were members of the program group uninterested in working, or were they unable to respond to the supplement offer for other reasons? According to Lin et al. (1998), two broad reasons were given for not taking up the supplement offer. First, about 40 percent of people who never received a supplement payment claimed they were unable to find a full-time job within a year

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payments of zero. Others might have continued working full time but at jobs that did not qualify them for supplement payments because the jobs did not pay the minimum wage.

of random assignment. Another 30 percent had physical or family problems that limited their ability to work. Only a handful indicated that they did not understand the supplement offer, did not think the supplement offer was worth the effort of working full time, or thought Income Assistance provided a more secure source of income than work.

IMPACTS ON EMPLOYMENT, EARNINGS, WAGES, AND HOURS WORKED

Full-Time Employment

Although members of the program group received supplement payments because they worked full time, the rate of supplement receipt does not directly reveal how the program affected full-time employment. It is possible that all the people who received the supplement would have worked full time even without the supplement offer. If that had happened, equal proportions of the program and control groups would have worked full time, and the impact of the program would have been zero. If anyone was convinced by the program to change her employment from part time to full time, however, or to move from not working at all to working full time, the program would have increased full-time employment.

Figure 2.2 reveals the effects of the program on full-time employment. The figure shows the proportion of the two research groups who were working full time starting 10 months prior to random assignment and ending 34 months after random assignment.[2] In addition to showing full-time employment for each group, the figure shows the program's impact as measured by the difference in outcomes for the two groups.

Prior to random assignment, fewer than 10 percent of either group worked full time, but the two groups were about equally likely to be doing so. This is the expected result in a random assignment evaluation and is one indication that random assignment really did produce control and program groups with comparable characteristics at baseline. It provides further confidence that any differences that exist between the two groups after random assignment are due to SSP's supplement offer.

During the first year after random assignment, full-time employment for the program group soared, partly in response to the supplement offer. Over this 12-month period, full-time employment increased from about 5 percent to about 30 percent.[3] In contrast, the control group only gradually increased its full-time employment in the first year, from about 5 percent around the time of random assignment to between 10 and 15 percent by the end of the first year. As a result, the program's *impact* on full-time employment, measured as the difference between the program group and control group for this outcome, increased to nearly 15 percentage points during the first year. At the end of the first year, the program had more than doubled full-time employment.

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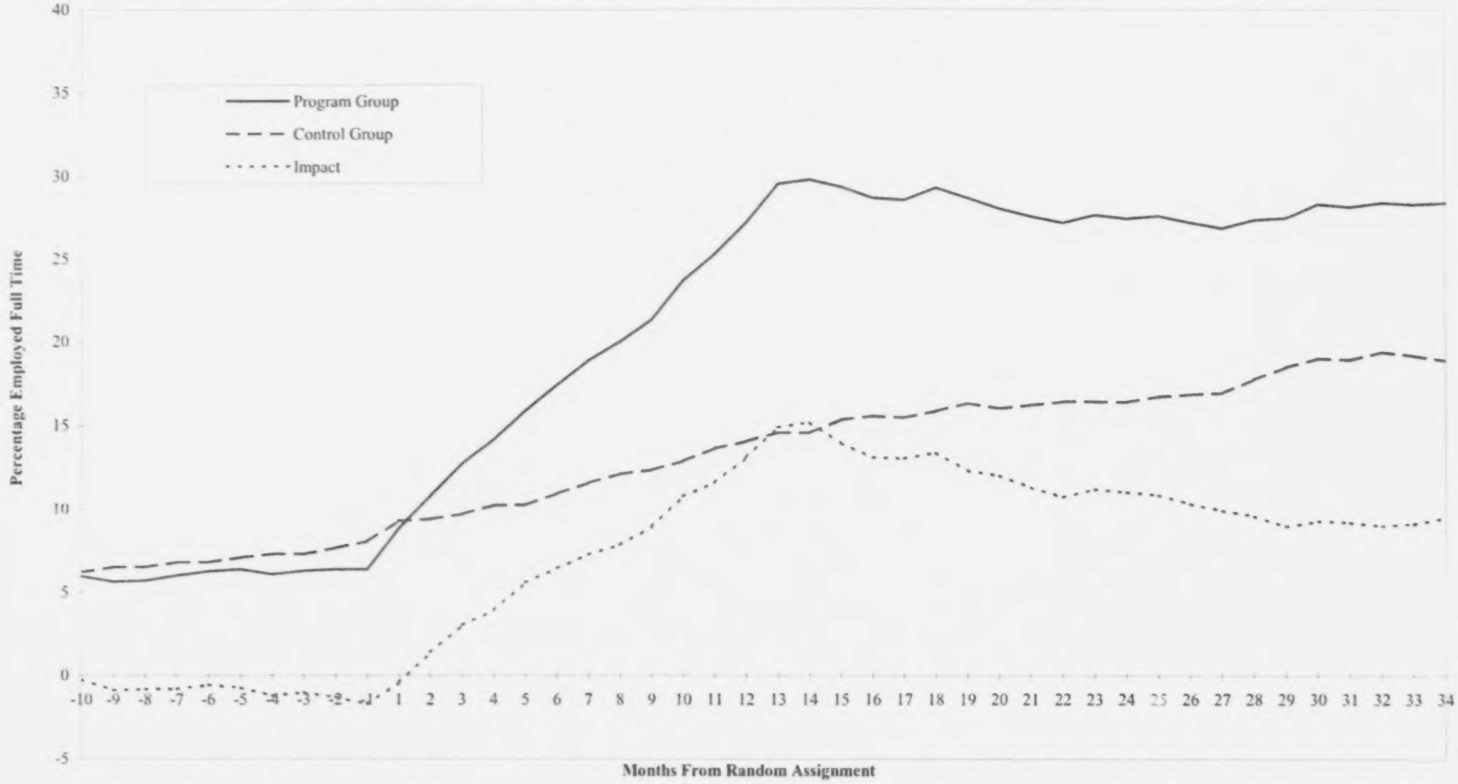
[2] Information on employment comes from the 36-month survey. Some individuals were interviewed as early as month 35, however, so that the last full month of employment information is month 34. Results related to employment and earnings in this report are shown through only 34 months, with the exception of Table 2.3.

[3] Although SSP supplements were generally paid to program group members who worked 30 hours or more per week on average for an entire month, for this report an individual was considered to have worked full time if she worked 30 hours or more for at least one week in the month.

Figure 2.2: Percentage Employed Full Time, by Month From Random Assignment



Sources: Calculations from baseline survey data, and 18-month and 36-month follow-up survey data.

Note: Information on IA and SSP payments is available for 36 months even though information on employment and earnings is available for only 34 months. The difference stems from the different sources of information. While the survey — the source of information on employment and earnings — contains only 34 months of follow-up for all sample members, administrative records have 36 months of information for all sample members.

In the second half of the follow-up period, the program's impact on full-time employment diminished somewhat. The control group's rate of full-time employment continued to increase, rising from about 15 percent at the end of the first year to almost 20 percent at the end of the third year. In contrast, the proportion of the program group working full time remained remarkably steady during this time, so that the program's impact remained fairly high at about 10 percentage points at the end of the follow-up period.

Although the program's impact on full-time employment declined over time, this decline does not represent a failure of the program. In fact, the rules underlying the supplement offer were expected to result in smaller impacts in the second and third years after random assignment. The bulk of the program group (65 percent) did not initiate supplement payments during the first year and therefore could never receive a supplement. As a result, the incentive's pull toward full-time employment ceased to exist for this group, and there is no reason to think they would have worked any more or less than if they had been in the control group. Another 25 percent of the program group received supplement payments in the first year and were still working full time at the beginning of the second year of follow-up. For this group, full-time employment could not go up, and it is likely to have decreased as some lost their jobs. In fact, the gradual increase in work by the control group could have eliminated SSP's impact by the end of the third year. The fact that it did not means that the program has been a steady success; few programs to encourage welfare recipients to work have had such a large impact on full-time employment through three years.

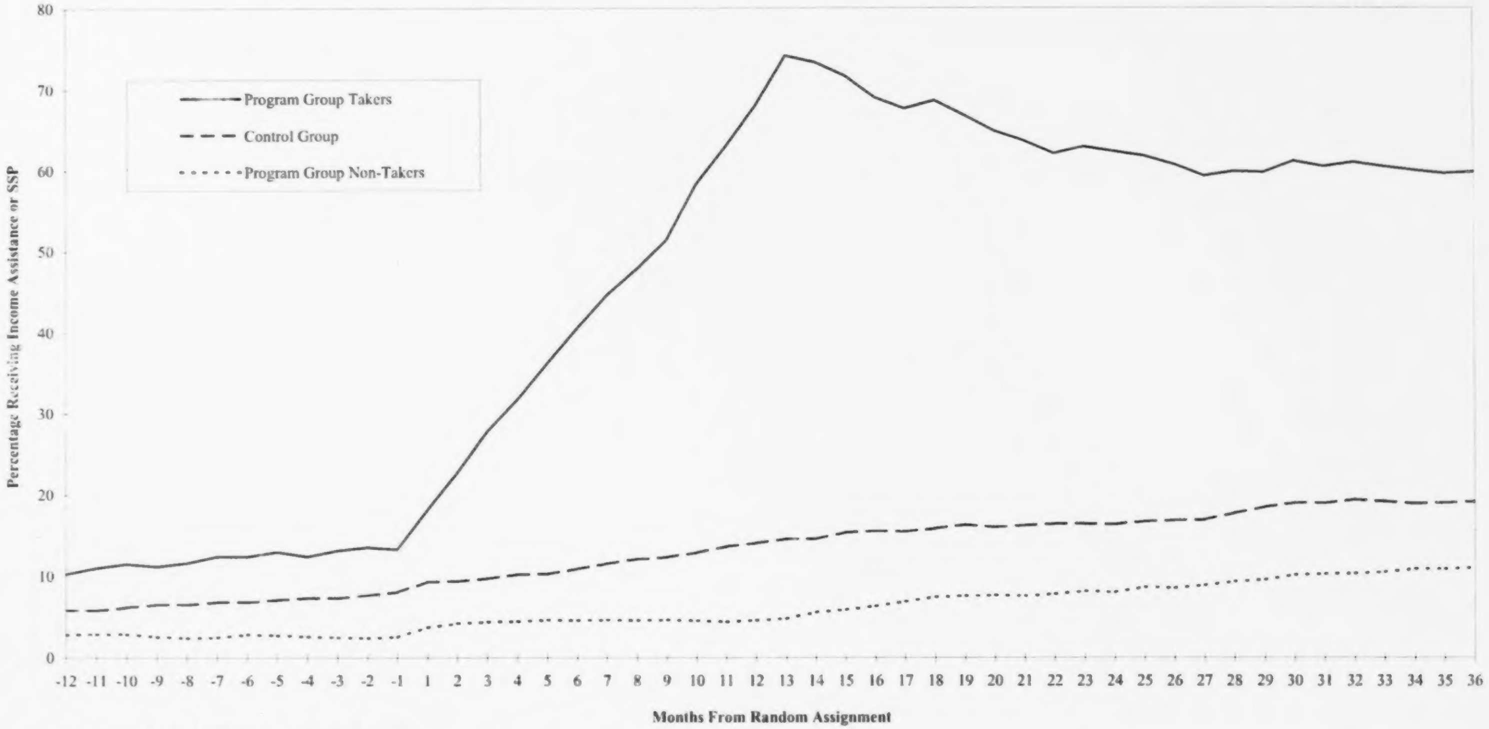
Figure 2.3 provides further insight into SSP's impact on full-time employment. The figure shows the full-time employment rate for three groups: the part of the program group that ever received a supplement payment (Program Group, Takers), the rest of the program group (Program Group, Non-Takers), and the entire control group. Although Figure 2.2 shows that full-time employment for the program group remained fairly constant after month 15, Figure 2.3 shows that this stability was a result of two offsetting influences. Full-time employment for people who took up the supplement peaked at the end of the first year at around 74.1 percent. It then declined over the second year to about 62.2 percent and remained at that level through the third year. The remainder of the program group (people who never received a supplement) increased its full-time employment over time. This increase had the same causes as the increased employment of the control group.

Use of Income Assistance

Along with increased employment, a second major goal of SSP was to reduce use of the IA program. Figure 2.4 shows that SSP also accomplished this goal. Like Figure 2.2, the figure shows outcomes for the two research groups and the impact of the program from about a year prior to random assignment to 34 months after random assignment.

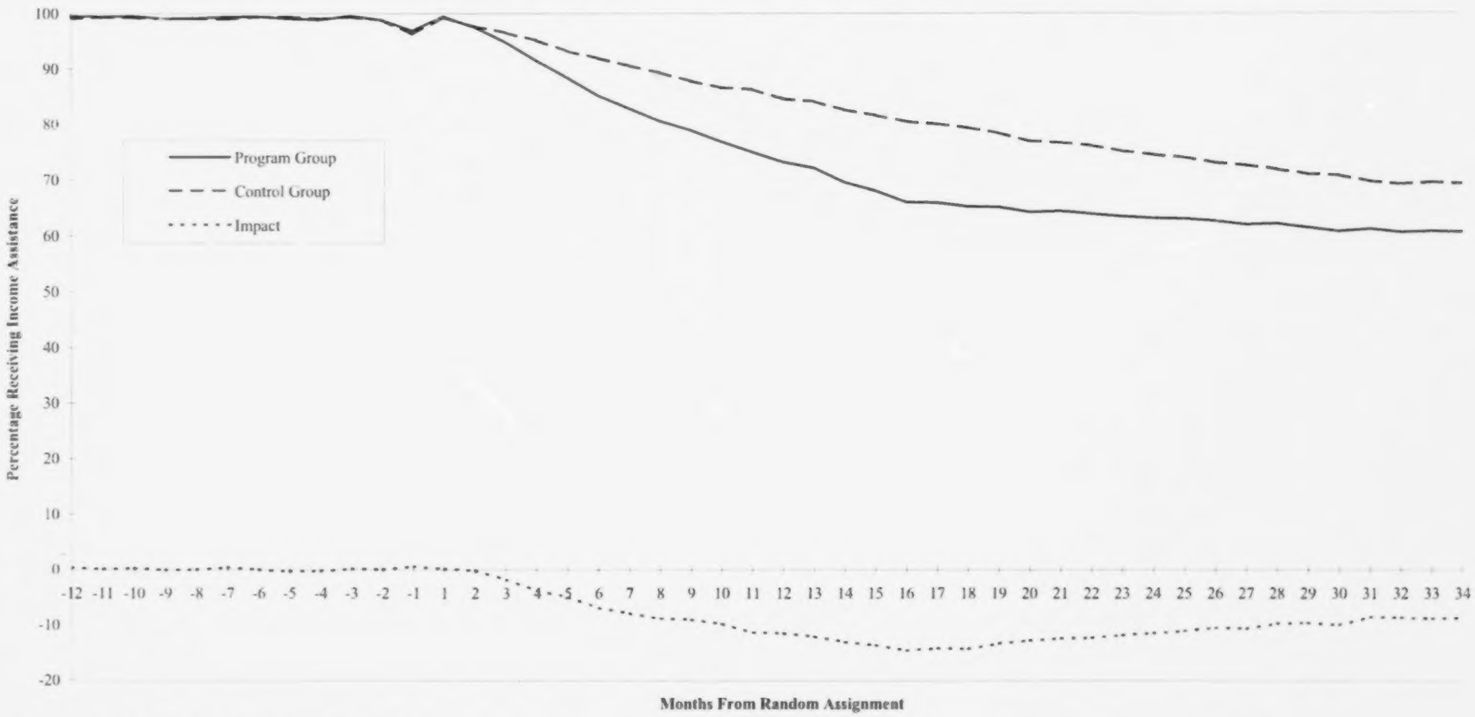
Recall that people were chosen to be part of the recipient study at a point when they had received Income Assistance in at least 12 out of 13 months. Reflecting this selection criterion, nearly all sample members received Income Assistance in each month prior to random assignment. Because people could have stopped receiving Income Assistance for one month in the year prior to random assignment, the proportion of the sample receiving Income Assistance is just under 100 percent in most months prior to random assignment.

Figure 2.3: Percentage of Supplement Takers, Control Group, and Supplement Non-Takers Employed Full Time, by Month From Random Assignment



Source: Calculations from IA administrative records.

Figure 2.4: Percentage Receiving Income Assistance, by Month From Random Assignment



Source: Calculations from IA administrative records.

Note: Information on IA and SSP payments is available for 36 months even though information on employment and earnings is available for only 34 months. The difference stems from the different sources of information. While the survey — the source of information on employment and earnings — contains only 34 months of follow-up for all sample members, administrative records have 36 months of information for all sample members.

Program group members who received the supplement could not also continue to receive Income Assistance. As a result, when receipt of the supplement grew in the year after random assignment, receipt of Income Assistance fell more rapidly for the program group than for the control group, and the gap between the two groups gradually increased in the first year after random assignment. By the beginning of the second year, the program had reduced use of Income Assistance by about 15 percentage points.

Corresponding to the diminished impact on full-time employment, however, the impact on receipt of Income Assistance also declined somewhat in the second and third years after random assignment. Over time, the control group continued to reduce its use of Income Assistance. For the program group, in contrast, use of Income Assistance remained somewhat steady after the first year after random assignment. Nevertheless, the program's impact on use of Income Assistance remained fairly strong throughout the follow-up period, ending at about 10 percentage points.

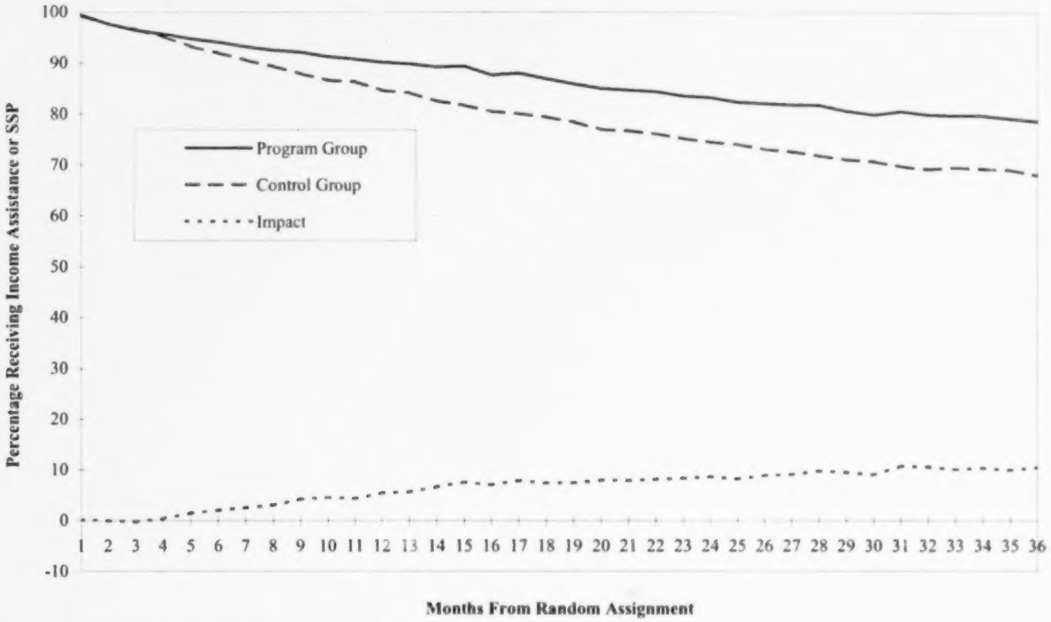
It is instructive to compare the program's impact on use of Income Assistance with its impact on full-time employment. While the impact of the program on full-time employment peaked at about 15 percentage points at the beginning of the second year after random assignment, its impact on use of Income Assistance also peaked at about 15 percentage points near the beginning of the second year. When the program's impact on full-time employment declined to just under 10 percentage points at the end of the follow-up period, its impact on use of Income Assistance also declined to just under 10 percentage points. Thus, the program's impact on receipt of Income Assistance mirrors its impact on full-time employment. This is a natural consequence of the rules of SSP that do not permit a person to receive Income Assistance in a month when she qualifies for a supplement payment. People who begin to work full time because of the supplement are consequently the same people who stop receiving Income Assistance because of the supplement.

Receipt of Cash Transfers From Income Assistance or SSP

By the nature of the program, SSP's impacts on self-sufficiency through earnings and reduction in welfare dependence entail a cost. People who are responsible for the gains in full-time employment and the reductions in use of welfare also received supplement payments. Many who received supplement payments did so because they changed their employment behaviour. Others, however, received supplement payments even though they would have worked full time and left Income Assistance if they had never been offered the supplement.

Figure 2.5 provides one perspective on the increased receipt of transfer payments resulting from SSP. Theoretically, at one extreme, it is possible that all the people who received the supplement would have left Income Assistance even if they had not been offered the supplement. In this case, the program would not have reduced use of Income Assistance at all, and the increase in use of cash transfers would be equal to the use of supplement payments. Figure 2.4 showed that this extreme did not occur, since the program did reduce use of Income Assistance.

Figure 2.5: Percentage Receiving Income Assistance or SSP, by Month From Random Assignment



Source: Calculations from IA administrative records.

At the opposite extreme, it is possible that all the people who received the supplement left Income Assistance *because of* the supplement. In this case, the proportion of the program group receiving the supplement would have been exactly equal to the program's impact on use of Income Assistance, and the program's impact on cash transfers would have been zero. Figure 2.5 indicates that this extreme also did not occur.

During the first year after random assignment, the proportion of the control group receiving cash transfers (only Income Assistance for this group) gradually declined, a result already shown in Figure 2.4. In the program group, however, a number of people who would have left Income Assistance without the supplement offer had moved to full-time employment and begun receiving supplement payments. As a result, the proportion of the program group receiving either supplement payments or Income Assistance declined more slowly than for the control group, and the program increased the number of people receiving cash transfer payments.

Unlike the impacts of SSP on full-time employment and use of Income Assistance, the impact of the program on receipt of cash transfers did not decline over time but rather increased gradually over the full 34 months. The reasons for this increase are simple but instructive. As shown in Figure 2.2 and Figure 2.4, control group members gradually began working full time and gradually moved off Income Assistance. While most members of the control group who worked full time stopped receiving Income Assistance at that point, most members of the program group who worked full time continued receiving supplement payments. As a result, the program group's receipt of cash transfers decreased less than the control group's receipt of transfers, and the program's impact on receipt of transfer payments increased.

This increase in use of cash transfers is an expected effect of offering a financial incentive like SSP and is not necessarily a negative consequence of the program. For these families, the supplement increased income and reduced poverty. If parents spent this extra money on food and other necessities or placed their children in higher quality child care arrangements that cost more, for example, children in those families might also have benefited from the increase in cash transfers.[4]

Employment, Earnings, and Cash Transfers

Table 2.1 summarizes the average impacts of SSP on employment, earnings, and cash transfers for each of the three years in the follow-up period covered by this report. In addition to outcomes shown in the previous figures, the table presents outcomes and impacts on part-time employment and employment overall, on earnings, and on payment amounts from Income Assistance and SSP supplements.[5] For each outcome, the first two columns of results show the average outcomes for the program group and the control group. The third column shows the impact of the program, again calculated as the difference in outcomes between the two research groups.

Table 2.1 also shows two indicators of the statistical precision of the estimated impacts. Asterisks next to an estimated impact indicate that the estimate is *statistically significant*, meaning that it is large enough to be regarded as evidence that the program had an impact. Impact estimates without asterisks are not statistically significant and should not be regarded as evidence of an impact, because small differences between the program and control groups' outcomes could occur even if SSP had no impact. The last column of the table shows the *standard error* in parentheses. The standard error, which is equivalent to the "margin of error" often published with public opinion poll results, is a measure of the statistical uncertainty associated with the impact estimate. There is a 95 percent certainty, then, that the actual impact of SSP lies within the range defined by the estimated impact, plus or minus two standard errors. For further discussion of the interpretation of statistical significance and standard errors, see Appendix A of Lin et al., 1998.

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[4] There are other costs associated with the program, of course, such as the cost of running the program. There are also other benefits, such as extra taxes paid by new workers and recipients of the supplement. These other costs and benefits are being ignored for the moment. A later section in the chapter presents impacts of SSP on payroll and income taxes and other transfer payments.

[5] Impacts of SSP by quarter are presented in Appendix B for each of the measures shown in Table 2.1. The appendix also provides impacts of the program by province, although most of the program's impacts were similar in the two provinces.

Table 2.1: SSP impacts on Employment, Earnings, Income Assistance, and Cash Transfers

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Monthly full-time employment rate (%)[a]				
Year 1	18.0	11.4	6.6 ***	(0.8)
Year 2	28.5	15.8	12.7 ***	(1.0)
Year 3	27.7	18.1	9.6 ***	(1.1)
Monthly part-time employment rate (%)				
Year 1	11.6	13.9	-2.3 ***	(0.8)
Year 2	11.6	14.6	-3.0 ***	(0.8)
Year 3	12.0	14.4	-2.4 ***	(0.8)
Monthly employment rate (%)				
Year 1	29.7	25.3	4.4 ***	(1.1)
Year 2	40.1	30.4	9.8 ***	(1.2)
Year 3	39.7	32.5	7.2 ***	(1.2)
Average earnings ($)				
Year 1	2,793	2,208	584 ***	(150)
Year 2	4,451	3,198	1,254 ***	(211)
Year 3	4,717	3,852	865 ***	(254)
Monthly rate of IA receipt (%)				
Year 1	85.4	91.7	-6.3 ***	(0.6)
Year 2	65.9	78.9	-12.9 ***	(1.1)
Year 3	61.3	70.7	-9.4 ***	(1.2)
Average IA payments ($)				
Year 1	9,075	9,503	-428 ***	(112)
Year 2	7,033	8,271	-1,238 ***	(143)
Year 3	6,207	7,113	-906 ***	(141)
Monthly rate of receipt of IA or SSP (%)				
Year 1	94.0	91.7	2.4 ***	(0.5)
Year 2	86.5	78.9	7.6 ***	(0.9)
Year 3	80.5	70.7	9.8 ***	(1.0)
Average payments from IA and SSP ($)				
Year 1	10,209	9,503	706 ***	(103)
Year 2	9,344	8,271	1,073 ***	(126)
Year 3	8,180	7,113	1,066 ***	(129)
Sample size (total = 4,961)	**2,503**	**2,458**		

Sources: Calculations from IA administrative records, payment records from SSP's Program Management Information System, baseline survey, and 18-month and 36-month follow-up surveys.

Notes: The estimates for each year, with the exception of earnings estimates, are calculated by averaging the four quarterly estimates. Average monthly earnings are calculated by dividing total yearly earnings by total number of months in which information is not missing.

Sample sizes vary for individual measures because of missing values.

Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a] "Full-time employment" is defined as working 30 or more hours in at least one week during the month.

Employment

The first panel of Table 2.1 presents another version of the program's impacts on full-time employment, showing the impact of the program on the monthly rate of full-time employment. As previously shown in Figure 2.2, the program increased full-time employment throughout the follow-up period. In the first year of random assignment, for example, 18.0 percent of the program group worked full time in the average month, compared with 11.4 percent for the control group. As a result, SSP increased full-time employment by 6.6 percentage points. This impact is statistically significant at the one percent significance level, as indicated by the three asterisks that accompany the impact estimate.

In the third year of the program, the impact on full-time employment remained substantial. Because members of the control group gradually began working full time, they worked full time more often in year 3 than in year 1: 18.1 percent worked full time in an average month in year 3, compared with 11.4 percent in year 1. The program group also worked full time more often in year 3, however — 27.7 percent on average, compared with 16.0 percent in year 1. As a result, the program's impact on monthly full-time employment increased from year 1 to year 3 and was 9.8 percentage points in year 3.

SSP can increase full-time employment in two ways. Some people who worked full time because of the supplement would have worked only part time in the absence of the supplement. Moreover, because SSP supplement payments are made only to people who work full time, the program provides no direct incentive for people to work part time. As a result, the program's impact on part-time employment provides an estimate of the number of people who responded to the supplement offer by moving from part-time to full-time employment.

According to the second panel of Table 2.1, the program reduced part-time employment much less than it increased full-time employment. In the first year after random assignment, for example, 11.6 percent of the program group worked part time in an average month, compared with 13.9 percent of the control group. The program therefore reduced part-time employment by 2.3 percentage points. Moreover, these numbers were virtually identical in each of the three years of follow-up. This suggests that few people who responded to the supplement by going to work would have worked part time in the absence of the supplement.

SSP could also have increased full-time employment by persuading people who would not have worked at all to work full time. The fact that SSP increased full-time employment much more than it reduced part-time employment suggests that this was the primary impact of the program. The third panel of Table 2.1 verifies this. In the third year of follow-up, for example, the program increased employment by 7.2 percentage points, from 32.5 percent of the control group to 39.7 percent of the program group.

Earnings

Since SSP increased employment and full-time employment, it stands to reason that it increased earnings as well. The fourth panel of Table 2.1 shows that earnings did increase in each of the three years. In the first year, as people began moving to full-time work, the program increased earnings by $584 per sample member. In the second year, when the program's impact on full-time employment was at its peak, its impact on earnings also peaked at $1,254 per sample member. Although the impact on earnings declined somewhat in the third year, it remained quite high at $865 per person, or about 25 percent higher for the program group than for the control group.

The annual earnings shown in Table 2.1 may appear to be quite low. For the control group in year 1, for example, they are only about $2,200. While it is true that long-term recipients typically qualify for low-wage jobs, earnings levels are also low because the calculation of average earnings includes both people who worked and those who did not work. In the third year after random assignment, for example, the average program group member's earnings of $4,717 was accumulated by the 39.7 percent of the program group who worked in an average month. Thus, an average member of the program group who worked throughout the year earned about $11,881 ($4,717/.397), an amount about equal to what someone would earn if she worked full time at a minimum wage job.

Another interesting calculation is the average earnings generated by the program per extra person who worked. In year 1, for example, SSP increased earnings by $584 per person and increased employment by 4.4 percentage points. For each extra person who worked, therefore, the program increased annual earnings by $13,273 (or $584/.044). This is again broadly consistent with someone working full time at a job that paid about the minimum wage. Since most of SSP's increase in full-time employment resulted from an overall increase in employment (rather than a movement from part-time to full-time employment), earnings per extra person who worked remained fairly constant over time. In year 3, for example, SSP increased earnings by $805 per month and increased employment by 7.2 percentage points, an increase in earnings of more than $12,014 per extra worker ($865/.072).

Cash Transfers

Figure 2.4 shows that SSP reduced use of Income Assistance. The fifth panel of Table 2.1 provides precise estimates of that effect.[6] The use of Income Assistance in the first year after random assignment reveals how dependent this group was on public assistance. More than 90 percent of the control group received Income Assistance in an average month in that first year. It is therefore likely that many members of the control group continued receiving Income Assistance for the entire year. Although SSP significantly reduced use of Income Assistance, members of the program group were also quite dependent on its benefits. About 85 percent of the program group received Income Assistance in an average month during the year after random assignment.

After year 1, when initiation of SSP supplement payments was completed, the program's impact on use of Income Assistance doubled in year 2 and remained substantial in year 3. In addition, the dependence of both groups on Income Assistance diminished quite a bit over time. In the third year of follow-up, 70.7 percent of the control group received Income Assistance in an average month, compared with 61.3 percent of the program group, an impact of 9.4 percentage points.

Along with use of Income Assistance, SSP also reduced the amount that people received from the program. In year 3, members of the program group received about $900 less in IA payments than members of the control group. Over the three-year follow-up period, the program reduced IA payments by more than $2,500 per person ($428 plus $1,238 plus $906).

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[6] Note that information on IA and SSP payments is available for 36 months even though information on employment and earnings is available for only 34 months. The difference stems from the different sources of information. While the survey — the source of information on employment and earnings — contains only 34 months of follow-up for all sample members, administrative records have 36 months of information for all sample members.

As has been discussed, the design of the SSP program almost ensured that it would increase the proportion of people receiving cash transfer payments from either the IA program or SSP supplements. In fact, as shown in Figure 2.5, the impacts of the program on receipt of cash transfers increased over time — again, almost by design. The penultimate panel of Table 2.1 provides precise estimates of this effect. In the second year after random assignment, when the program's impact on full-time employment peaked, it also increased the monthly rate of receipt of cash transfers by nearly eight percentage points. In the third year, after the program's impact on employment began to decline, its impact on the monthly rate of receipt of cash transfers increased to almost 10 percentage points.

The last panel of the table shows the extent to which the supplement offer and the increasing impact on receipt of cash transfers translate into higher payment of cash transfers through IA or supplement payments. Somewhat surprisingly, the impact on transfer payments stayed fairly steady in the second half of the follow-up period. In year 2, program group members received about $1,000 more in transfer payments than control group members. In year 3, the program's impact remained close to $1,000 per year.

Wages and Hours Worked

A concern about policies with financial incentives to work is that some people who would have worked without the incentive may take lower-paying jobs because of the incentive. These jobs may compensate for the lower pay by providing some other advantage, such as being closer to home or having more convenient hours. Even if they do not, the supplement offer makes this choice possible by increasing income for these people, even when they choose to earn less.

If some people accepted lower-wage jobs than they would have without the supplement, this could show up as a decrease in the number of people working at high-wage jobs. The earlier report by Lin et al. (1998) found no evidence of such an effect 18 months after random assignment, and the first panel of Table 2.2 provides no evidence of this effect three years after random assignment. Instead, about 11 percent of both the program group and the control group worked in jobs that paid at least $3 more than the minimum wage. While there was a slight difference between the two groups in the number with these relatively high-wage jobs, that difference was not statistically significant.[7]

Although there is no evidence that people took lower-wage jobs than they would have otherwise taken, a related concern is that people who respond to the program's incentives might nevertheless accept low-wage jobs, either because they do not have the skills needed to command higher wages or because they are willing to accept low wages in order to receive the supplement. At the 18-month point shown in Lin et al., 1998, indeed, the additional jobs generated by SSP all appeared to pay within $2 of the minimum wage, and more than twice as many paid within $1 of the minimum as paid between $1 and $2 more than the minimum wage. Table 2.2 indicates that not much has changed since then. Of the extra jobs that people held because of SSP in month 33, few paid more than $2 above the minimum wage. Moreover, the program's impact on employment within a dollar of the minimum wage

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[7] It is still possible that some people who would have worked without the supplement offer reduced their wages because of the supplement, but that other people who went to work because of the supplement offer accepted fairly high-wage jobs. Table 2.2 shows only that the second effect is as large as the first effect.

(4.6 percentage points) is more than twice as large as its impact on employment that paid between $1 and $2 more than the minimum wage (1.9 percentage points).

Table 2.2: SSP Impacts on the Distributions of Wages and Hours, Month 33

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Hourly wage rate (% in each category)				
Not working	60.2	65.7	-5.5 ***	(1.4)
Wage unreported[a]	1.6	2.2	-0.6	(0.4)
Less than minimum wage[b]	3.7	4.2	-0.5	(0.6)
Minimum to $0.99 above minimum	14.5	9.7	4.8 ***	(0.9)
$1.00-$1.99 above minimum	5.9	4.1	1.8 ***	(0.6)
$2.00-$2.99 above minimum	3.1	2.6	0.5	(0.5)
$3.00 or more above minimum	10.9	11.5	-0.6	(0.9)
Hours worked per week (% in each category)				
Not working	60.2	65.7	-5.5 ***	(1.4)
Hours per week unreported[a]	0.6	0.8	-0.3	(0.2)
Fewer than 30	10.9	14.3	-3.4 ***	(0.9)
30	5.4	2.1	3.4 ***	(0.5)
31-34	2.6	1.1	1.6 ***	(0.4)
35	4.6	2.3	2.3 ***	(0.5)
36-39	3.6	2.7	0.9 *	(0.5)
40	7.8	6.5	1.4 *	(0.7)
More than 40	4.2	4.5	-0.4	(0.6)
Sample size (total = 4,961)	**2,503**	**2,458**		

Source: Calculations from 36-month follow-up survey data.

Notes: Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a] Sample members in this category were employed during the month but did not report enough information about hours worked and/or earnings for the outcome in question to be calculated.

[b] In British Columbia, the minimum wage was $5.50 per hour from the beginning of the random assignment period in November 1992 until April 1993, when it rose to $6.00. In March 1995, it was increased to $6.50 and, in October 1995, it increased again to $7.00 per hour. In New Brunswick the minimum wage was $5.00 per hour from 1992 to 1995. In January 1996, it increased to $5.25 and, in July 1996, it rose again to $5.50.

Another concern about policies with financial incentives to work is that some people may respond to the incentive by reducing their work effort. Such a response is made possible by the extra income that the supplement provides. A person could have worked less, received the supplement, and still ended up with more income than without the supplement. SSP's 30-hour work requirement limited the ability to cut back work effort much. In addition, people had some incentive to work more under SSP, since the supplement rules essentially allowed them to keep half of additional earnings. Nevertheless, it is still possible that some who would have worked 40 hours per week in the absence of the supplement worked 30 hours per week with the supplement.

The second panel of Table 2.2 reveals no such effect. As indicated earlier, the program increased employment by a bit more than five percentage points (5.5 percentage points in month 33) and reduced part-time employment slightly. This reduction in part-time employment is shown in Table 2.2 by the 3.4 percentage point reduction in the proportion of people working fewer than 30 hours per week. When the 5.5 percentage point increase in employment and the 3.4 percentage point reduction in part-time employment are added, it can be seen that the program increased full-time employment by 8.9 percentage points in month 33.

If some people are cutting back their work effort, this would show up as a decrease in the number of people working many hours. There is no evidence of such a cutback. Instead, the program's nine percentage point increase in full-time employment is spread among categories of employment ranging from 30 hours to 40 hours per week. Although program group members were slightly less likely to work more than 40 hours per week than control group members, few members of either group did so, and the difference between the two groups is not significantly different from zero.[8]

Other Transfer Payments, Household Income, and Poverty

Earnings, IA payments, and SSP supplement payments were the primary sources of income for the SSP research group. They do not reflect the full financial circumstances of sample members, however, since they do not include income from other household members or income from other sources; moreover, they do not reflect the costs of payroll and income taxes or the benefits of other government transfer programs. Table 2.3 presents a fuller picture of household finances in the six months prior to the 36-month interview.

The first few rows of Table 2.3 repeat the story already covered: SSP increased earnings and supplement payments and reduced IA payments at the end of the third year of follow-up. During this period, in fact, payments from SSP were about two-and-one-half times the program's impact on earnings and more than double the impact on IA payments.

Other transfer payments were not the target of SSP, but they might have been indirectly affected by the program. If members of the program group who responded to the supplement offer by going to work subsequently lost their jobs, they could have turned to the Employment Insurance (EI) system. If their earnings exceeded certain thresholds, their payments from the Child Tax Benefit and Goods and Services Tax Credit could have been reduced. The fourth row indicates that this did not happen. Other transfer payments were similar for the program group and the control group.

Likewise, other income sources were not the target of the program, but they might have been affected. If the program encouraged a single parent to marry the other parent of her children, for example, it might have reduced child support and alimony payments from the other parent. By providing extra income, the program might have allowed some families to make ends meet without income from boarders in the household. For whatever reason, the last row of the first panel of Table 2.3 indicates that SSP did modestly reduce other unearned income.

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[8] The previous footnote on the distribution of wages also applies to the distribution of hours of work. Despite the evidence shown in Table 2.2, it is still possible that some people cut back their work effort from 40 hours per week to 30 hours per week and that even more people increased their work effort from part time to 40 hours per week. Results in Table 2.2 can neither confirm nor refute this possibility.

Table 2.3: SSP Impacts on Monthly Income and Net Transfer Payments in the Six Months Prior to the 36-Month Follow-Up Interview

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Sources of individual income ($)				
Earnings	406	348	58 **	(23)
SSP supplement payments	156	0	156 ***	(6)
IA payments	506	573	-67 ***	(12)
Other transfer payments[a]	239	236	4	(6)
Other unearned income[b]	80	93	-13 *	(8)
Projected taxes and net transfer payments ($)				
Projected income taxes[c]	94	61	33 ***	(8)
Net transfer payments[d]	814	757	56 ***	(16)
Total individual and family income				
Total individual income ($)	1,395	1,259	136 ***	(24)
Total individual income net of taxes ($)	1,301	1,198	103 ***	(17)
Total family income ($)[e]	1,585	1,432	153 ***	(32)
Percentage with income below the low income cut-off[f]	76.8	86.2	-9.4 ***	(1.2)
Sample size (total = 4,961)	**2,503**	**2,458**		

Sources: Calculations from 36-month follow-up survey data, IA administrative records, and payment records from SSP's Program Management Information System.

Notes: Sample sizes vary for individual measures because of missing values. This may cause slight discrepancies in sums and differences.

Two-tailed t-tests were applied to differences in outcomes between the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a] Includes the Child Tax Benefit, the Goods and Services Tax Credit, Employment Insurance (EI), and provincial tax credits.

[b] Includes alimony, child support, income from roomers and boarders, and other reported income.

[c] Includes projected EI premiums and Canada Pension Plan premiums deducted at payroll and projected income taxes. Payroll deductions and income taxes were projected from federal and provincial tax schedules and data on earned and unearned income and SSP supplement payments; the actual taxes paid by sample members may differ from these projections.

[d] Includes public expenditures on SSP, IA payments, and other transfers, net of income tax revenue.

[e] Family income is measured by the sum of the sample member's income and the labour earnings of any other members in that person's family.

[f] Calculated by comparing annualized family income with the low income cut-off defined by Statistics Canada for the sample member's location and family size.

The middle panel of Table 2.3 shows the impacts of SSP on public financing. When members of the program group went to work and received the SSP supplement, the government footed the bill by paying the difference between the supplement payments and the reduction in IA payments. At the same time, however, the federal and provincial governments collected income taxes, and the federal government collected payroll taxes and premiums for the EI system. According to the table, the governments collected $33 more per month on average from members of the program group than from members of the control group. Thus, the extra transfer payments coming through the SSP supplement were partially offset by higher tax revenues. Nevertheless, on net, the government spent $56 more per month on average on higher transfer payments associated with SSP, virtually the same amount as the $55 per month increase at the 18-month point shown in Lin et al., 1998.

The final panel of Table 2.3 summarizes the impacts of the program on personal and household income. Adding together the increased earnings and supplement payments, and subtracting the reduced IA and other transfer payments, the average member of the program group had $136 more than the average member of the control group in income per month. After taxes, the increased income due to SSP was slightly less, at $103 per month.

SSP was not intended to affect directly the income of other family members, but it could have had such an effect. The extra income coming from the supplement might have allowed a partner to cut back his work effort to care for young children in the family, or it might have allowed adolescent children to stop working and concentrate on their studies. If the extra income allowed the single parents in the sample to remain single, it could have reduced the income of other household members by reducing the presence of other household members. Table 2.3 implies that any such effect was modest at best. Comparing total family income with total individual income, the average family in the program group received $190 from other family members ($1,585 less $1,395). The average family in the control group received a similar amount, $173 ($1,432 less $1,259). In other words, earnings of other household members added a little less than $200 per month to household income for both research groups, and the program's impact on household income — $153 per month — was similar to its impact on personal income.

Poverty among long-term welfare recipients is extremely high. It is not surprising, therefore, that the extra $153 in monthly household income generated by SSP resulted in a substantial reduction in the number of families with income below Statistics Canada's low income cut-off (LICO). While 86.2 percent of the control group had low income in the six months prior to the 36-month interview, only 76.8 percent of the program group had low income, implying that the program reduced poverty by 9.4 percentage points.

Expenditures, Hardship, Assets, and Debt

Although SSP was expected to have an immediate impact on some outcomes, such as employment, income, and welfare use, its effects on other outcomes might have taken longer to appear. Having more income each month for three years might have allowed people to reduce their debt substantially or to accumulate savings. Since spending patterns may take some time to develop, the program's impacts on expenditures on food, clothing, and shelter might be greater after three years than they were at 18 months. Likewise, it may take considerable time and money to move away from inadequate housing or to repair leaky roofs, so impacts on measures of hardship might be larger with a longer follow-up period.

Table 2.4 shows the impacts of SSP on expenditures, hardship, assets, and debt at the end of the third year of the program. The first panel of the table indicates that the program did increase expenditures on basic necessities such as food, clothing, rent, and child care. Adding up the impacts of SSP on the six categories of expenditures indicates that members of the program group spent $49 more per month than members of the control group on these items. Considering that the program increased monthly after-tax income by only $103 on average, this implies that members of the program group spent about one-half of their additional income on these six items.

Although SSP increased expenditures on food and housing, it had few systematic effects on hardship. Reflecting the increased spending on food, fewer members of the program group reported not being able to get groceries, although more than 30 percent of both groups reported having this difficulty. Perhaps reflecting the increased spending on housing, members of the program group were also less likely to report having structural problems with their houses. Other measures of hardship were not affected much by the program. In particular, members of the program group were no more or less likely to have had trouble visiting the dentist or doctor or getting medication in the six months prior to the interview.

Table 2.4: SSP Impacts on Expenditures, Hardship, and Assets

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Expenditures ($/month)				
Spending on groceries	371	357	14 **	(6)
Spending on eating out	52	45	6 ***	(2)
Spending on children's clothing	47	44	3 **	(1)
Spending on own clothing	16	14	1 **	(1)
Spending on child care	32	21	11 ***	(2)
Rent	449	435	14 **	(7)
Hardship (%)				
Used food bank last 3 months	17.8	18.8	-1.0	(1.1)
Couldn't get groceries	30.2	34.4	-4.2 ***	(1.3)
Gas or hydro turned off	2.5	2.1	0.4	(0.4)
Structural problems in house	10.3	12.3	-2.0 **	(0.9)
Things not working properly in house	11.5	12.7	-1.2	(0.9)
Couldn't visit dentist in last 6 months	26.4	26.9	-0.5	(1.3)
Couldn't visit doctor in last 6 months	6.5	6.7	-0.2	(0.7)
Couldn't get medication in last 6 months	12.6	14.2	-1.6	(1.0)
Savings				
Amount of savings ($)	484	511	-27	(138)
Savings unreported (%)	5.9	6.6	-0.6	(0.7)
No savings (%)	32.5	34.3	-1.8	(1.3)
Savings of $1-$499 (%)	48.8	49.3	-0.4	(1.4)
Savings of $500 and above (%)	12.8	9.9	2.9 ***	(0.9)
Debt				
Amount of debt ($)	2,505	2,581	-76	(187)
Debt unreported (%)	3.4	4.0	-0.7	(0.5)
No debt (%)	48.3	48.7	-0.4	(1.4)
Debt of $1-$2,499 (%)	24.9	24.3	0.6	(1.2)
Debt of $2,500 and above (%)	23.4	23.0	0.4	(1.2)
Sample size (total = 4,961)	**2,503**	**2,458**		

Source: Calculations from 36-month follow-up survey data.

Notes: Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

Sample sizes vary for individual measures because of missing values.

Food spending refers to money spent on groceries and on eating out. Sample members were asked at the 36-month interview how much they spent in an average week on each of these items. Food expenditures were converted to monthly estimates by assuming 4.33 weeks per month. For other items, the precise questions on the 36-month survey were as follows. For use of a food bank: "In the past three months, have you or other members of your family used a food bank to obtain groceries for your household?" For children's clothing: "On average, how much do you and your family spend each month on children's clothing?" For monthly rent: "What do you pay for your monthly rent or mortgage? (Do not include subsidies that are paid directly to you.)"

In addition to increasing spending on basic necessities, members of the program group might have been able to use their extra income to build up savings or pay down debt. The final two panels of Table 2.4 show some slight evidence of the former, but little evidence of the latter. Although average savings for both research groups was about $500, the program group was slightly more likely to have savings exceeding $500. Although the program group had slightly less debt than the control group, the difference was small and not statistically significant.

Child Care

Over the last few decades, employment by mothers of young children has grown markedly. As a result, children have been spending substantially more time in the care of people other than their parents, and the market for child care has also steadily grown. For long-term welfare recipients, however, child care may represent a substantial barrier to working. Because they have few skills and can earn little if they do work, many single parents on welfare would have a hard time finding the means to pay for child care. Since they are single parents, moreover, most cannot rely on a partner or the parent of their children to provide care. The fact that they have been on welfare for a substantial amount of time may also indicate that they cannot rely on other free forms of care, such as care by a close relative or an older child.

SSP's impacts on use of child care are instructive, therefore, for a number of reasons. If members of the program group are no more likely to use formal care than members of the control group, or if they are just as likely to use free care as members of the control group, these findings would undercut somewhat the notion that they could not work because free care was not available. On the other hand, if SSP substantially increased the use of formal care, this finding might imply that people were being dissuaded from working by the need for this often expensive form of child care (or it might imply that members of the program group are using their extra income to buy better care for their older pre-school children).

The program's impacts on child care may also provide a preview of the impacts of the program on children. Care outside the home may be more appropriate for three- to five-year-old children than for children under age three (Lamb, 1998). If these older pre-school children are more likely to be placed in child care in the program group than in the control group, this impact may foreshadow positive effects on the cognitive, emotional, and social development of these children. If infants are also more likely to be placed into formal care, however, this may foreshadow less positive developments for these children.

Types of Child Care Arrangements

Table 2.5 presents the impacts of SSP on child care arrangements used for the youngest child in each family. At the 36-month interview, parents were asked whether they had used any formal or informal child care arrangements in the 18 months prior to the interview. As a result, Table 2.5 presents some extremely crude measures of the effects of the program on use of child care, since it cannot differentiate use of a care arrangement for the 18-month period from use of the arrangement for just one month.

According to Table 2.5, families in the program group were more likely to use some type of child care arrangement than were families in the control group. The difference in use of child care was quite small compared with the program's impact on employment, however. It is possible that children in the program group were in care for many more months than children in the control group, but this cannot be determined from the interview. It is also possible that a substantial number of parents used a regular child care provider even when they were not working.[9]

Table 2.5: SSP Impacts on Child Care Use and Expenditures

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Type of child care used (%)				
Any type of care	33.8	31.3	2.5 *	(1.3)
Formal care	12.3	11.5	0.8	(0.9)
Informal care	25.8	23.5	2.3 *	(1.2)
Extent of child care use				
Number of arrangements	0.49	0.45	0.04 *	(0.0)
More than two different arrangements (%)	3.0	2.7	0.2	(0.5)
Average number of hours per week in past month	8.5	6.8	1.7 ***	(0.5)
Stability of child care (%)				
Changed two or more times in past 6 months	2.7	1.7	1.0 **	(0.4)
Any problems with care in past 6 months	17.4	15.3	2.1 **	(1.1)
Expenditures on child care				
Cost subsidized by government (%)	14.6	16.6	-2.1 **	(1.0)
Monthly cost excluding subsidy ($)	32	21	11 ***	(2)
Use of child care by age of youngest child at random assignment[a]				
0-2 years old				
Any type of care (%)	54.4	48.9	5.5 **	(2.6)
Formal care (%)	23.2	21.3	1.9	(2.2)
Informal care (%)	39.7	34.6	5.1 **	(2.5)
Monthly cost excluding subsidy ($)	96	74	22 **	(10)
3-5 years old				
Any type of care (%)	45.7	39.9	5.8 **	(2.9)
Formal care (%)	16.0	15.0	1.0	(2.1)
Informal care (%)	36.7	31.2	5.5 **	(2.8)
Monthly cost excluding subsidy ($)	104	66	38 ***	(11)
6-11 years old				
Any type of care (%)	24.3	24.4	-0.1	(2.4)
Formal care (%)	5.8	4.6	1.2	(1.2)
Informal care (%)	19.1	20.1	-1.0	(2.2)
Monthly cost excluding subsidy ($)	68	50	18	(12)
12 years or older				
Any type of care (%)	1.7	1.5	0.1	(0.8)
Formal care (%)	0.2	0.7	-0.5	(0.4)
Informal care (%)	1.2	0.7	0.6	(0.6)
Monthly cost excluding subsidy ($)	68	70	-2	(76)
Sample size (total = 4,961)	**2,503**	**2,458**		

Source: Calculations from 36-month follow-up survey data.

Notes: Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a] The sample sizes for each category of the age of youngest child at random assignment subgroup are as follows: youngest child 0–2, program group 726, control group 769; youngest child 3–5, program group 608, control group 574; youngest child 6–11, program group 654, control group 627; and youngest child 12 years or older, program group 484, control group 453.

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[9] Michalopoulos and Robins (forthcoming) indicate that more than 40 percent of married mothers with children under age five placed their youngest child into care by someone other than a parent even when they were not working.

For both research groups, use of informal care was much more prevalent than use of formal care. This is not surprising, since formal care is typically more expensive than informal care. As a result, most of the program's impact on use of care comes from increased use of informal care. Since informal care encompasses a wide variety of child care arrangements, including care by a relative, care by a neighbour coming into the home, or care by a family day care provider outside the home, it is difficult to know how to interpret the greater use of informal care and the greater impact of the program on informal care.

Number and Stability of Child Care Arrangements

Along with increasing the use of care, SSP increased the number of providers used and the instability of care. Both factors are often thought to be detrimental to children's development, unless, for example, the parent changes providers when a slot becomes available at a desirable centre. During the 18 months prior to the interview, members of the program group used slightly more arrangements for their youngest child than did members of the control group.

Perhaps of greater concern is the difference in recent and frequent changes in providers. In particular, the program increased the proportion of families that changed providers two or more times in the prior six months by more than 50 percent. Fortunately, few families in either research group had such unstable care. Perhaps more worrisome are the facts that about one in six families indicated having some problem with their child care arrangement in the six months prior to the interview and that the program increased the proportion of families experiencing such problems.

Expenditures on Child Care

In addition to increasing the use of child care, SSP has increased how much families spend on care. In the month prior to the 36-month interview, parents in the program group spent $32 on average on child care, compared with $21 for parents in the control group. At the same time, parents in the program group were less likely to have the cost of care subsidized by the government. These patterns are not surprising. A number of child care subsidies are available only to low-income families, and SSP has substantially lifted the income of a number of families in the program group. In addition, families in the program group may be using some of their extra income to buy different types of child care that are not subsidized by the government.

Child Care Arrangements by Age of Youngest Child at Random Assignment

The child care arrangements described in the first panel of Table 2.5 are likely to mask some important differences. School-age children are less likely to need care than pre-school children, and adolescent children can probably care for themselves after school. While formal care is often thought to be the most appropriate care for children three to five years old, informal care may provide a more nurturing environment for infants.

The remainder of Table 2.5 presents the impacts of the program on child care arrangements for four age groups of children. To preserve the experimental nature of the comparison, the four age groups were defined on the basis of the age of the youngest child at random assignment. If a family has added children since random assignment, therefore, the youngest child in the family may be in a different age group from the one indicated in the table. Even if a family has not added children, the youngest child will be three years older at the time of the 36-month interview than he was at the time of random assignment. As a result, responses for a child born just prior to random assignment represent the child care arrangements used for that child between 18 and 36 months of age. Likewise, responses for a three-year-old at random assignment represent the child care arrangements when the child was approximately four to five years old.

As expected, the program primarily affected the child care arrangements of children under six years old at random assignment, and almost no families whose youngest child was an adolescent at random assignment used child care at all. Less expected is the similarity of the program's impacts on use of formal and informal care for the youngest age group and the second youngest age group. In both cases, about five percent more of the children in the program group than in the control group were placed in informal care. The program had little impact, on the other hand, on the use of formal care for children in either age group.

IMPACTS BY SUBGROUP

At the 18-month follow-up point, SSP had remarkably similar impacts on full-time employment and receipt of Income Assistance across a wide range of subgroups. Its impacts in New Brunswick were about the same as those in British Columbia. Impacts on high school graduates were about the same as for high school dropouts. Impacts on people working at random assignment were about the same as for people not working at random assignment. This section examines the continuing impacts of the program on several sets of subgroups: by age of youngest child, by whether the sample member had a high school diploma, by employment status, by prior IA receipt, and by physical disability; all are measured at the time of random assignment.

Table 2.6 presents impacts of the program by subgroup for two outcomes: total months worked full time since random assignment and cumulative income from earnings, Income Assistance, and SSP supplement payments since random assignment. As was true at the 18-month follow-up point, impacts on full-time employment were similar for the various subgroups. The largest variation is by employment status at time of random assignment. For example, the program had a relatively small impact on full-time employment for people who were already working full time at random assignment (2.7 months). This is not surprising, since this group had the ability to find full-time work even without the supplement offer. Because it is easier to move from part-time to full-time work than to move from not working to working full time, the program's biggest impact on full-time employment was for people working part time at random assignment (4.6 months), and its impact was nearly as big for those looking for work at baseline (4.1 months). This suggests the program substantially changed the behaviour of those who were predisposed toward work but had not yet found full-time employment.

Impacts across the four subgroups were close enough to one another, however, that the differences could be due to chance. In fact, for all subgroups shown in Table 2.6, differences in impacts on full-time employment were close enough that they could be due to chance.

Table 2.6: SSP Impacts on Months Employed Full Time and Cumulative Income, by Subgroup

			Total Full-Time Employment (Months)			Cumulative Income ($)		
Subgroup	Sample Size	Supplement Receipt Rate (%)	Control Group	Difference (Impact)		Control Group	Difference (Impact)	
Age of youngest child at random assignment					n.s.			n.s.
0-2	1,381	18.0	4.4	3.5 ***		32,087	4,935 ***	
3-11	2,193	20.6	5.4	3.2 ***		32,712	5,258 ***	
12-15	510	20.8	5.3	3.4 ***		31,645	5,533 ***	
16 and over	335	24.0	6.1	2.0 *		28,184	4,929 **	
Has high school diploma or equivalent					n.s.			††
Yes	2,016	26.1	7.2	3.1 ***		33,206	6,179 ***	
No	2,459	14.7	3.3	3.3 ***		31,021	4,303 ***	
Employment status at random assignment					n.s.			†††
Full-time	271	45.6	20.0	2.7 **		41,943	9,204 ***	
Part-time	496	33.2	7.7	4.6 ***		36,803	8,036 ***	
Not employed, looking for work	997	22.6	5.1	4.1 ***		31,231	6,386 ***	
Neither employed nor looking for work	2,691	13.5	2.6	3.0 ***		30,361	3,971 ***	
Income Assistance receipt over past 3 years					n.s.			††
10-23 months	1,056	23.0	6.4	3.0 ***		32,459	6,585 ***	
24-35 months	1,497	21.5	5.5	3.6 ***		32,166	6,025 ***	
All 36 months	1,924	17.5	3.9	3.3 ***		31,541	4,000 ***	
Reported physical condition that limited activity					n.s.			††
Yes	1,130	15.3	3.3	2.9 ***		31,061	3,315 ***	
No	3,343	21.7	5.7	3.4 ***		32,296	5,846 ***	

Sources: Calculations from baseline survey data, 18-month and 36-month follow-up survey data, IA administrative records, and SSP's Program Management Information System.

Notes: The subgroups are defined according to characteristics at random assignment. Persons answering "don't know" to a particular question that contributed to defining a subgroup are excluded from the analysis of that subgroup.

Two-tailed t-tests were applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

F-tests were applied to differences among subgroups in estimated impacts. Statistical significance levels are indicated as: † = 10 percent; †† = 5 percent; ††† = 1 percent.

The abbreviation "n.s." indicates that the variation in impacts among the subgroups is not statistically significant.

Rounding may cause slight discrepancies in sums and differences.

Despite the similar impact on full-time employment across subgroups, the program increased income quite a bit for some groups and only modestly for others. This finding reflects the degree to which people in a subgroup received supplement payments, since the supplement was a major source of income for these families. This is most obvious for those working full time at random assignment. Although the program had a small impact on full-time employment for this group, the average program group member in this subgroup worked full time in 22.7 of the 34 months after random assignment, and nearly half of the subgroup received at least one supplement payment.

Since the group frequently worked full time and frequently received extra income from the supplement, SSP had the largest effect on income for this group — more than $9,000 per year. In contrast, only 13.5 percent of people who were neither working nor looking for work at random assignment ever received a supplement payment, and members of the program group worked full time for only 5.6 months on average. As a result, the program increased income for this group more modestly — only $3,971 per member of the program group.

Impacts on income were relatively large for the other groups who were most likely to work full time and most likely to receive the supplement, and these subgroups tended to be groups of more "job-ready" people. High school graduates increased their income by more than $6,000 over the follow-up period because of the supplement. Sample members who were working part time at random assignment had their income increase by more than $8,000 because of SSP. People who had been on Income Assistance for less than three years had income gains of more than $6,000, and those who did not report a physical limitation had income gains of nearly $6,000.

Chapter 3:
Will SSP Have Longer-Term Effects?
Impacts of the Program on Employment Stability, Wage Growth, Marital Status, and Attitudes

The success of SSP can be viewed from a number of perspectives. From the point of view of the long-term recipients who have accepted its offer of a financial supplement, it has already succeeded; it has increased their income, reduced their poverty, and reduced their hardship. From the point of view of citizens interested in reducing poverty, it has also been successful during its first three years of operation. If the objective of SSP is to reduce welfare use in the long-term, however, its success cannot be judged until after all program group members have used up their eligibility for supplement payments. This will not occur until about four years after random assignment, and the question will be answered to some extent in the next report in this series on the recipient experiment. This chapter attempts to preview what will happen by looking at four factors that could be related to longer-term changes in behaviour: employment stability, wage growth, marital status, and attitudes toward work and welfare.

The easiest way to have a job tomorrow is to keep the job you have today. No search is required; there is no stress from wondering what the new job will hold. Nevertheless, many low-skilled workers are able to find only jobs that provide temporary employment. They are typically the first to lose jobs during recessions, or when the company they work for suffers financial distress; they are more likely than other workers to be hired to fill temporary needs. As a result, the ability of SSP to encourage long-term welfare recipients to take full-time jobs might not translate into employment stability or long-run employment prospects if these jobs are typically held for a short time. On the other hand, if recipients of the supplement have been able to keep their full-time jobs throughout the follow-up period, it is more likely they will be able to keep the same jobs after the supplement period has ended, producing a long-term impact on full-time employment and, by extension, welfare receipt. The first section of this chapter therefore examines the effect of SSP on employment stability.

There is a simple reason for SSP's success at encouraging full-time employment: the supplement was necessary to make work pay better than welfare because the jobs that long-term welfare recipients can find usually pay less than their welfare grants. By encouraging people to take full-time jobs, however, SSP also increased work experience. With additional work experience, people may have gained skills and familiarity with the workplace that have made their contributions to the workplace more valuable. As the value of their work has increased, the wages they are paid should also have increased. SSP might therefore have longer-term effects on full-time employment if wages increased enough for some people that the jobs they had after three years on the supplement paid enough for them to remain off welfare even without supplement payments. The second section of this chapter therefore investigates the extent to which wage growth improved the wage prospects of people who responded to the supplement offer.

Even if wages did not increase markedly, it is possible that work may have changed sample members' attitudes about work and welfare. Many considered welfare stigmatizing even before the supplement was offered. The idea of returning to welfare may have become even more distasteful than before they entered the world of work. Likewise, many may have discovered that they enjoy leaving the house each day and going to work, or that they have better relationships with their children because work has allowed them to spend less time, but higher-quality time, with their children. If work has improved people's attitudes about work and welfare, program group members should have changed their attitudes more on average than control group members. The third section of this chapter therefore investigates differences in attitudes that have developed between the two groups over time.

In addition to encouraging people to work, the SSP supplement was designed to encourage them to marry. While a spouse's income affects the amount of Income Assistance (IA) a family can receive, SSP supplement payments depend only on the program group member's earnings and hours worked. By encouraging people to go to work and giving them extra income, SSP may also have changed their marriage decisions. Some people may have become more likely to marry because they were able to find partners in the workplace or because their increased income made them more attractive marriage partners. Others might have used their increased income to delay marriage. Since marriages typically last many years, any impact of SSP on marriage may have effects on behaviour after people are no longer eligible for the supplement. The final section of this chapter therefore investigates whether the program had an impact on marriage through the three years studied.

For each of the four measures examined, SSP was found to have some impact, but the impacts were typically small. A number of people had wages that grew more than 10 percent per year, but SSP's incentives increased this proportion by only four percentage points. Attitudes of the program group indicated that they felt greater control over their lives than the control group, but the difference was only marginally significant. In New Brunswick, members of the program group were significantly more likely to be married at some point after random assignment than were members of the control group. By month 36, however, differences between the two groups were not statistically significant. Moreover, similarly small reductions in marriage in British Columbia throw some doubt on whether SSP is really affecting marriage at all. The most promising finding comes from the exploration of job stability. For every three people who went to work full time because of SSP, the program increased stable full-time employment for two people. In other words, SSP's effects on employment largely resulted in stable employment. Details of these findings follow.

EMPLOYMENT STABILITY AND RETENTION

It is clear that SSP encouraged people to find jobs and, more than that, to find full-time jobs of 30 hours or more per week. When programs like SSP increase employment, they may do it by "digging deeper" into the caseload. That is, they may encourage work among a more disadvantaged group who might have less education and less work experience and might receive lower wages. It is possible that this more disadvantaged group will have trouble keeping the full-time jobs they have taken. In particular, although Chapter 2 indicated that SSP continued to have substantial impacts for three years, those impacts had diminished somewhat after the impacts peaked at the beginning of the second year, and the diminished impacts could be a sign that supplement takers were losing work. If supplement takers were able to keep their jobs, on the other hand, this could make it easier for them to continue working after the supplement is no longer available, extending SSP's impacts on employment into the longer term.

Employment Stability

Table 3.1 presents two estimates of the effects of SSP on stable full-time employment. The first panel of the table examines the extent to which full-time employment lasted a year or longer. The second panel examines the extent to which the program increased stable employment. The third panel attempts to parcel out the program's impact on months of full-time employment into the number of people who worked full time, the speed at which they acquired full-time work, and the frequency with which they worked full time once they began working full time.

Full-Time Employment Lasting a Year or More

The first row of the table begins the examination of employment stability by repeating a familiar finding: SSP substantially increased full-time employment. While 42.5 percent of the program group ever worked full time in the first 18 months after random assignment, 27.3 percent of the control group did, for an impact of 15.2 percentage points.

Were people who responded to SSP's supplement offer by finding full-time jobs able to stay employed full time? The next two rows report two composite outcomes: (1) the proportion of each of the two research groups that found full-time jobs but stayed employed full time for less than a year, and (2) the proportion that found full-time jobs and stayed employed full time for a year or more.

How should these measures be interpreted? At one extreme, all the people encouraged by SSP to work full time could have lost those jobs quickly and stopped working full time after less than a year. In that case, the impact of the program on the proportion who worked full time for a year or more would be zero. At the same time, the impact on the proportion who worked for less than a year would be as large as the impact on full-time employment overall (15.2 percentage points).

At the other extreme, it is possible not only that SSP encouraged people to work full time but also that all of those people worked full time continuously for a year or more. In that case, the impact on full-time employment that lasted less than a year would be zero, since all the extra workers stayed employed for a year or longer. Likewise, the impact on full-time employment that lasted a year or more would be the same as the impact on full-time employment (15.2 percentage points). It is even possible that SSP went further and encouraged some people who would have worked full time without SSP, but would have lost their full-time jobs quickly, to stay employed full time for a year or longer. In that unlikely event, SSP's impact on the proportion working full time for less than a year would be *negative*.[1]

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[1] This discussion refers to the actions of people who worked full time because of SSP but would not have worked full time without the supplement offer. This is a didactic expression to help understand the meaning of the composite impacts being examined. It is possible, for example, that people who would have worked full time even without SSP kept their full-time jobs longer to take advantage of the supplement. As a result, the impact of the program on stable employment probably represents some change in the behaviour of people who worked full time because of the supplement combined with some change in the behaviour of those who would have worked full time without the supplement offer.

Table 3.1: SSP Impacts on Employment Stability and Months of Full-Time Employment in the First Three Years After Random Assignment

Employment Outcome	Program Group	Control Group	Difference (Impact)	Percentage Change (%)
First spell of full-time employment (%)				
Employed full time in months 1 to 18	42.5	27.3	15.2 ***	55.6
First spell lasted 1 to 12 months[a]	21.6	17.0	4.6 ***	27.4
First spell lasted 13 or more months	20.9	10.4	10.6 ***	101.8
Stability of full-time employment (%)				
Employed full time in months 1 to 18	42.5	27.3	15.2 ***	55.6
Not employed full time or unstable full-time employment in months 19 to 34	23.1	18.3	4.8 ***	26.4
Stable full-time employment in months 19 to 34	19.4	9.0	10.4 ***	115.0
Not employed full time in months 1 to 18	57.5	72.7	-15.2 ***	-20.9
Not employed full time or unstable full-time employment in months 19 to 34	56.4	71.2	-14.8 ***	-20.8
Stable full-time employment in months 19 to 34	1.0	1.4	-0.4	-27.1
Months employed full time				
Months employed full time	8.4	5.1	3.3 ***	64.5
Ever employed full time (%)	50.8	39.1	11.6 ***	29.7
For those ever employed full time				
Months before first full-time job obtained[b,c]	9.4	11.6	-2.2 ***	-19.0
Remaining months of follow-up after first full-time job obtained[c]	24.6	22.4	2.2 ***	9.9
Total months employed full time after first full-time job obtained[c]	16.5	13.0	3.5 ***	26.8
Percentage of months employed full time[c]	68.9	63.2	5.7 ***	9.0
Sample size (total = 4,961)	2,503	2,458		

Source: Calculations from baseline survey data, and 18-month and 36-month follow-up survey data.

Notes: Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Rounding may cause slight discrepancies in sums and differences.

Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Stable full-time employment is defined as working full time 12 or more months in months 19–34.

[a] Measured from date of random assignment for those working at random assignment.

[b] Zero for those employed full time at random assignment.

[c] Non-experimental comparison.

The actual results show that neither of the extremes occurred. Most, but not all, of the initial full-time employment generated in SSP did result in full-time employment that lasted at least a year. In particular, nearly twice as many program group members as control group members found full-time jobs and stayed employed full time for a year or longer — 20.9 percent compared with 10.4 percent. That is, SSP increased full-time employment of a year or more by more than 10 percentage points.

By increasing full-time employment as much as it did, SSP also caused a modest increase in employment that lasted less than a year: 21.6 percent of the program group worked full time at some point but stayed employed for less than a year, compared with 17.0 percent of the control group, an increase of 4.6 percentage points. This is not surprising, considering that the program was expected to dig deeper into the caseload to encourage people to work who would not have worked otherwise. In addition, as the one-year window for initiating supplements approached, there was an incentive for people to take any full-time job they could find, including jobs they knew would end quickly. In view of these factors, it is encouraging that so many people who went to work full time kept their employment for as long as they did.

Full-Time Employment for Three-Quarters or More of the Follow-Up Period

The first panel of Table 3.1 presents a somewhat extreme version of stable full-time employment; a person was not considered to have stable full-time employment unless she worked full time for 12 consecutive months or more. The second panel of the table investigates a different and somewhat less extreme version of stability. Rather than asking whether people had unbroken full-time employment once they started working full time, it asks whether they worked full time for most of the follow-up period after they found full-time work. In particular, the panel asks whether the extra employment generated by SSP in months 1 through 18 lasted in months 19 through 34 in a stable way, so that people worked full time in at least 12 of the 16 months from months 19 through 34.

The interpretation of this panel is similar to the interpretation of the first panel. At one extreme, none of the people that SSP encouraged to work full time would have found stable employment. In that case, the impact of the program on the proportion who worked full time 12 or more months in the second half of the follow-up period would be zero. At the same time, the impact on the proportion who worked in unstable full-time employment would be as large as the impact on full-time employment overall (15.2 percentage points). At the other extreme, *all* of the people that SSP encouraged to work full time would have found stable employment. In that case, the impact of the program on stable full-time employment would equal its impact on full-time employment and the impact on unstable full-time employment would be zero.

By this measure of stable employment, SSP's primary effect was to increase stable full-time employment. In fact, stable employment more than doubled. While 9.0 percent of the control group had a full-time job at some point in the first 18 months of follow-up and then worked full time at least 75 percent of the months in the remainder of the follow-up period, 19.4 percent of the program group had this outcome, for an impact of 10.4 percentage points.

SSP also increased unstable full-time employment, but only modestly. While 18.3 percent of the control group had a full-time job at some point in the first 18 months of follow-up and then worked full time fewer than 75 percent of the months in the remainder of the follow-up period, 23.1 percent of the program group had this outcome, for an impact of 4.8 percentage points. In other words, of the 15.2 percentage-point increase in full-time employment, about one-third did not result in stable full-time employment in the remainder of the follow-up period. Nevertheless, it is extremely encouraging that two-thirds of the extra full-time employment was stable even though SSP dug deeper into the caseload.

These impacts are all the more impressive because so few members of the sample were able to find stable full-time employment. Among those who found full-time work early, more than half ended up with unstable full-time work. In the control group, for example, twice as many people had unstable full-time employment as had stable full-time employment. SSP substantially improved this ratio. In the program group, 23.1 percent had unstable full-time employment, and only slightly fewer (19.4 percent) had stable full-time employment later.

Likewise, few people in either research group acquired stable full-time employment *after* the 18-month point. Only one percent of each research group began working full time after month 18 and subsequently had stable full-time employment. Even more striking, nearly three of every four control group members (71.2 percent) either never worked full time or worked full time only in the second half of the follow-up period, and even then had only unstable full-time employment. In other words, this was a sample group with serious barriers to working full time, yet SSP's incentives were so powerful that the program was able to increase stable full-time employment substantially.

Breaking Down SSP's Impact on Full-Time Employment

So far, the results have indicated that SSP increased full-time employment early in the follow-up period *and* increased employment stability late in the follow-up period. In other words, SSP increased full-time employment by getting more people to go to work full time *and* by getting them to stay employed full time. Another perspective on this finding is provided by the final panel of Table 3.1. The first row of this last panel presents another version of SSP's impact on full-time employment: the program increased the number of months employed full time by 64.5 percent (from 5.1 months per control group member to 8.4 months per program group member). The rest of the panel provides a non-experimental analysis that helps understand how the program increased months of full-time employment.

Months of full-time employment could have increased in one of three ways. First, the program could have increased the number of people who *ever* worked full time. Second, the program could have increased months employed full time by getting members of the program group to work full time sooner. Finally, the program could have increased months employed full time by persuading members of the program group to work full time more often once they did find full-time work.

Understanding the importance of each of these sources of increased employment may help foreshadow the possibility of impacts after the supplement is withdrawn. One possibility is that just as many control group members as program group members worked full time at some point in the follow-up period, but that program group members took full-time jobs faster because of SSP. Under this scenario, SSP's impacts are likely to be short-lived since control group members demonstrated equal ability to find full-time work. Under a more optimistic scenario, more people went to work full time because of the supplement offer, but control group members and program group members who ever worked full time did so for the same number of months. This scenario could foreshadow a promising future for SSP's impacts; it would suggest that people who were encouraged to work by the supplement were still working at a high rate near the end of their eligibility for the supplement.

As has been indicated, the program increased months of full-time employment by 64.5 percent. Of this change, the second row of the panel indicates that about half came through extra job finding. Over the first 34 months after random assignment, 50.8 percent of the program group ever worked full time, compared with 39.1 percent of the control group. This represents an increase of 29.7 percent, or nearly half of the 64.5 percent increase in months of full-time employment.

A smaller portion of the increase in months employed full time came through faster job finding. Among people who found full-time jobs, program group members found a job after 9.4 months, on average, while control group members found their first full-time job after 11.6 months, on average. This left 24.6 months in the follow-up period for the average full-time working program group member to work full time, compared with 22.4 months for control group members who ever worked full time, an increase of only 9.9 percent, or about one-sixth of the increase in months of full-time employment.

Likewise, a small portion of the increase in months of full-time employment came because program group members were more likely to work once they found full-time jobs. The average member of the program group who worked full time did so for 16.5 months, or 68.9 percent of the follow-up period that remained after first finding full-time work. In comparison, the average control group member who worked full time did so for 13 months, or 63.2 percent of the remaining follow-up period. Thus, there was a nine percent increase in the fraction of the remaining follow-up period employed full time — about one-seventh of the overall increase in months employed full time.

In other words, SSP increased months of full-time employment primarily by increasing the number of people who ever worked full time. Members of the program group took their first full-time job only slightly earlier on average than members of the control group. Once they found full-time work, they were only slightly more likely to continue working full time than members of the control group.

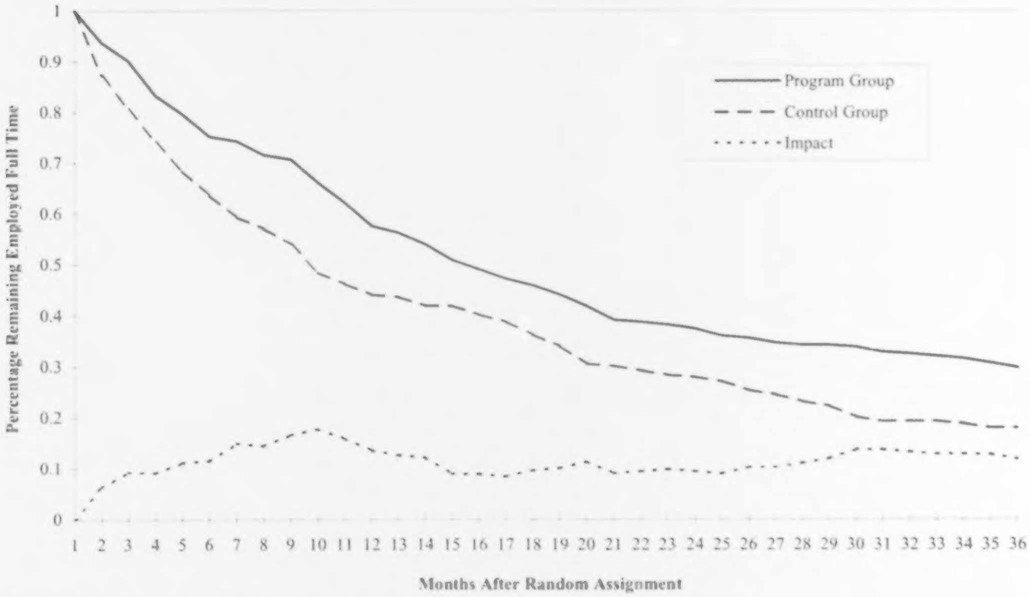
Employment Duration

The preceding discussion parcelled the extra employment generated by SSP into stable employment and unstable employment. The discussion assumed, however, that people who would have worked full time in the absence of SSP did not change their employment decisions. In particular, it assumed that people who would have had unstable full-time employment without SSP had unstable full-time employment with SSP. This ignores a likely impact of the program's financial incentive among people who would have worked full time in the absence of the supplement. Consider a person who was already working full time at random assignment. If such a person in the control group lost her full-time job, she would have the same incentives as before to reacquire a full-time job. For a similar person in the program group, however, the supplement would provide an extra incentive to find full-time work again. Moreover, that program group member would have an extra incentive not to leave her full-time work should that decision ever arise.

Spells of Full-Time Employment for Those Employed Full Time at Random Assignment

Figure 3.1 presents an indication of how much the supplement encouraged people who were already working full time to keep their full-time employment. For the group of sample members who were already working full time at random assignment, the figure shows, month by month, the proportion of each research subgroup that had been working full time continuously since random assignment. In this way, it provides a measure of the length of full-time employment for these sample members. Thus, the outcome at one month is the proportion of the group that worked full time for at least one month starting with the month of random assignment. Since only sample members who were working full time at random assignment were included in the figure, all worked full time for at least one month. That is, the figure shows that 100 percent of the subgroup in both research groups worked full time for at least one month.

Figure 3.1: Percentage Remaining Employed Full Time of Those Employed Full Time at Random Assignment



Sources: Calculations from baseline survey data, and 18-month and 36-month follow-up survey data.

In reading the figure, the important thing to know is that a higher line indicates that more people in that group had kept their full-time employment continuously to that point. In this case, the line for the program group lies above the line for the control group everywhere, indicating that program group members typically remained at full-time employment longer than control group members. For example, 10 months into the follow-up period, about 65 percent of this part of the program group was still working full time and had been working full time in every month since random assignment. In comparison, fewer than 50 percent of this part of the control group had worked full time for 10 consecutive months starting with the month of random assignment. The program's impact, shown by the dashed line at the bottom of the figure, is therefore positive and indicates that the program induced people who were working full time at random assignment to continue working full time longer than they would have without the supplement offer. By month 34, about 30 percent of program group members who were working full time at random assignment had worked full time for each month of the follow-up period, compared with only about 18 percent of the control group for this subgroup, an impact of about 12 percentage points.

It is important to note that the comparison shown in Figure 3.1 is an experimental comparison. Because of random assignment, program group members who were working full time at baseline were similar in all respects to control group members who were working full time at baseline. It would not be an experimental comparison, however, to compare outcomes for program group members who worked full time starting after random assignment with control group members who worked full time starting after random assignment. Since SSP increased the number of people who ever worked full time, these two groups would not be comparable in their baseline characteristics or other factors that are not observed.

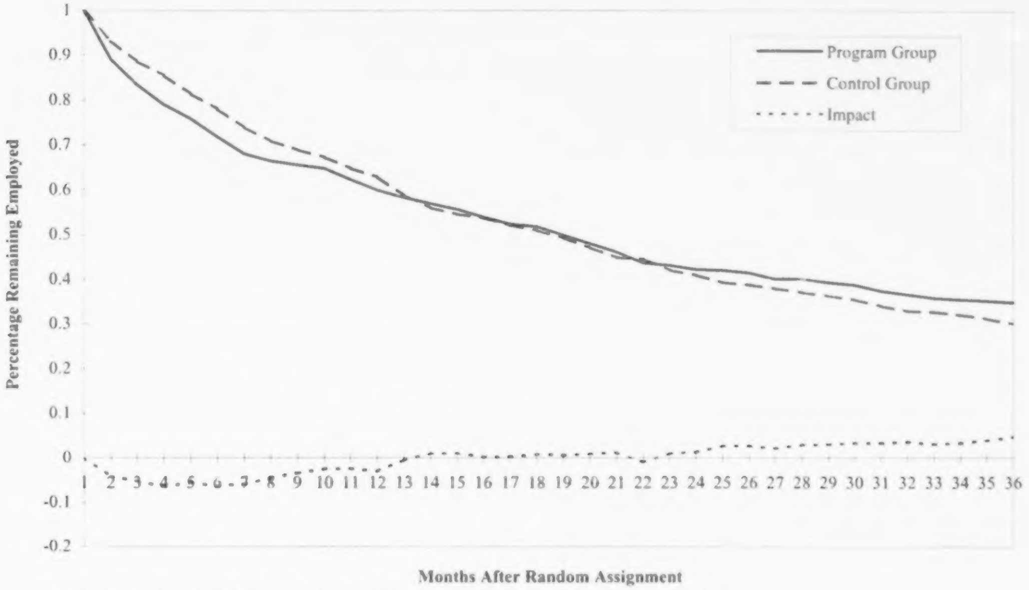
Spells of Employment for Those Employed Part Time at Random Assignment

Figure 3.2 shows a similar result for the 12 percent or so of the sample that was working part time at random assignment. In this case, the figure shows the proportion of each group that continued to work at all — part time or full time — in the period after random assignment. Moreover, SSP's small impact on part-time employment indicates that program group members who moved from part-time to full-time work might not be comparable with control group members who made the same move. Some people who would have worked part time without the supplement (as represented by the control group) did not work part time because of the supplement (as represented by the program group).

Figure 3.2 shows a curious result. Program group members who were working part time at random assignment were initially less likely to remain employed than corresponding control group members. Through month 9 of the follow-up period, the program appeared to induce these sample members to quit or lose their jobs. It is possible that the part-time jobs held by these program group members had little prospect of becoming full time and that these sample members found it difficult to look for full-time work while working part time.

By the end of the first year after random assignment, the two research groups look quite similar. About 60 percent of both groups continued to work and had worked continuously throughout the first year. Near the end of the second year after random assignment, the impact of the program reversed itself, and program group members who were still working left employment less frequently than similar control group members. This is an expected effect of the SSP supplement. Once sample members have initiated the supplement, they have less incentive to leave work than control group members who are unable to receive the supplement.

Figure 3.2: Percentage Remaining Employed of Those Employed Part Time at Random Assignment

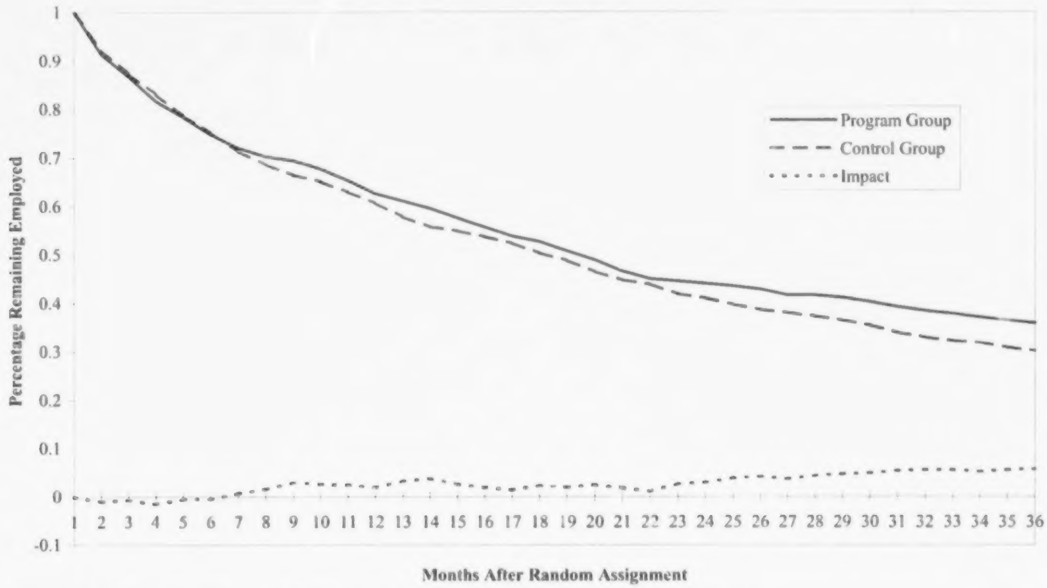


Sources: Calculations from baseline survey data, and 18-month and 36-month follow-up survey data.

Spells of Employment for Those Employed at Random Assignment

Figure 3.3 summarizes the effects of SSP on length of employment of all sample members who were employed at random assignment. The figure shows surprisingly little difference between the two groups. During the second year, duration continued to be about the same for the two research groups. The impact on employment retention did not become statistically significant until month 29. While 41 percent of program group members who were working at random assignment continued to work in every month through month 29, only 36 percent of similar control group members did, for an impact of five percentage points that is statistically significant at the 10 percent significance level. The impact on survival in employment continued to grow slightly, to six percentage points, by the end of the follow-up period.

Figure 3.3: Percentage Remaining Employed of Those Employed at Random Assignment



Sources: Calculations from baseline survey data, and 18-month and 36-month follow-up survey data.

Summary of Results on Employment Stability and Duration

These results are promising. The supplement offer not only encouraged people to take full-time jobs earlier but also encouraged more people to take full-time jobs. Once they found full-time work, moreover, many worked full time most of the time. In particular, they worked full time just as often as members of the control group. As a result, the program substantially increased work experience for many members of the program group. Among people already working full time at random assignment, the program likewise increased work experience by persuading them to keep their full-time jobs longer. If that additional work experience translated into higher wages, different attitudes about work, or both, the impacts of the program might persist after the constant encouragement of the SSP supplement is withdrawn.

WAGE GROWTH

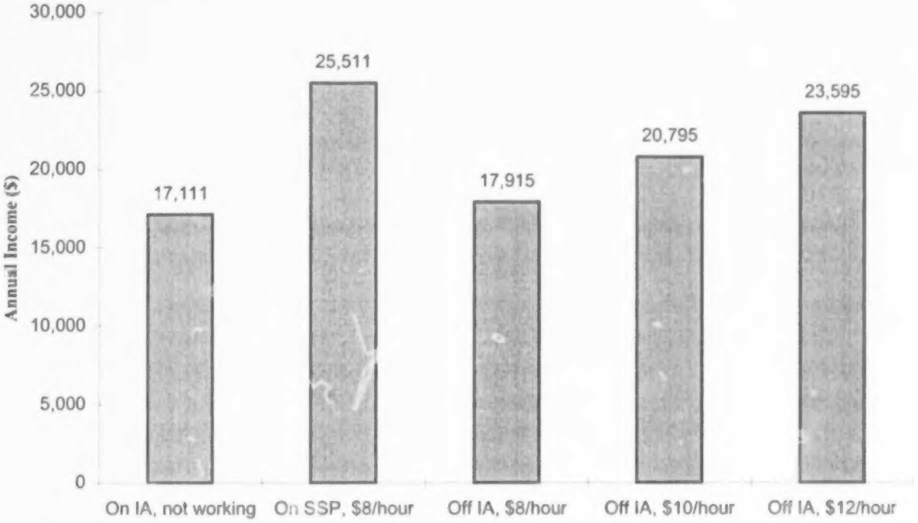
One of the initial hopes underlying SSP was that people who went to work full time would gain valuable work experience that would allow them to increase their earnings and hourly wages. If wages increased enough, work might continue to pay better than welfare after the supplement was no longer available. Two recent studies provide further hope. One suggests that wages increase as much for low-skills workers as for high-skills workers when they increase their work experience by similar amounts (Gladden and Taber, 1999). A second suggests that former welfare recipients who work full time have substantially higher wage growth than people who work part time (Corcoran and Loeb, 1999). As the previous section shows, SSP increased work experience, particularly at full-time jobs. Therefore, these studies imply that SSP will encourage a reasonable amount of wage growth.

How Much Wage Growth Is Needed?

Income With Income Assistance, With the Supplement, and With Neither

How much would wages have to increase to make work pay better than welfare? Figure 3.4 provides one perspective by showing income with and without Income Assistance for a mother with two children in British Columbia. According to the first bar, the family would have about $17,111 in annual income if the mother did not work, if the family received the maximum IA benefit payment each month, and if the mother received other transfers available to her (such as the Goods and Services Tax credit and the Child Tax Benefit). Lin et al. (1998) indicated that this mother had little reason to combine work and Income Assistance if she earned close to the provincial minimum wage; her total income would barely change.

Figure 3.4: Comparison of Income on Income Assistance and Income While Working 40 Hours Per Week in British Columbia



Source: Calculations based on basic IA benefit levels and federal and provincial tax codes.

Notes: The wage rates examined in New Brunswick are lower due to a lower minimum wage in New Brunswick, and a lower average wage among the sample members in New Brunswick as compared with British Columbia.

Wage rates represent after-tax wage rates.

Most of the employment initially generated by SSP in British Columbia paid between $7 and $8 per hour.[2] According to the second bar in the figure, a family's after-tax income would be $25,511, or 50 percent greater than under Income Assistance, if the parent earned $8.00 per hour and worked 40 hours per week while receiving the SSP supplement. For the typical sample member in British Columbia, therefore, an additional $7,000 or so in income was enough to make full-time work worthwhile, although it is possible that lower amounts would have also encouraged some full-time employment.

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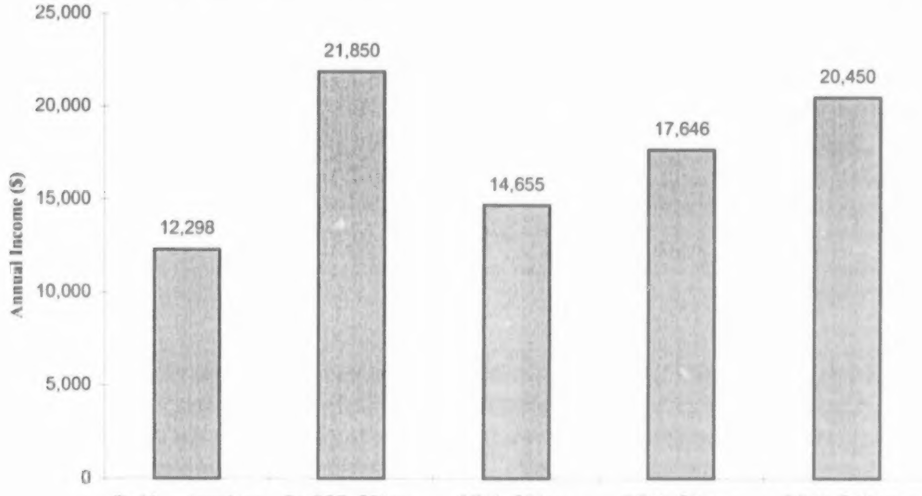
[2] See Lin et al., 1998, Table 3.4.

The final three bars show income for this hypothetical family after its three years on the supplement end if the mother chooses to work 40 hours per week and remain off Income Assistance. Income is shown for three scenarios: (1) wages did not grow and the mother continued to earn $8 per hour, (2) wages increased by 25 percent to $10 per hour, and (3) wages increased by 50 percent to $12 per hour. Under the first scenario, the family's income would be only $17,915 if the parent's hourly wage did not increase from $8. That is, working full time would increase the family's income by only about $600 per year relative to being on Income Assistance. If the parent's wage increased by 25 percent to $10 per hour, the family's income would be $20,795 if she worked full time, about halfway between income under Income Assistance and income with the SSP supplement. Finally, if the parent's wage increased 50 percent, to $12 per hour, her income with full-time work would be $23,595, or nearly as much as under SSP. Thus, wage growth would have to be extremely high to make work pay as much as it initially did with the supplement.

Figure 3.5 tells a similar story for New Brunswick. The typical job generated by SSP paid between $5 and $6 per hour in New Brunswick; the figure therefore assumes that the mother initially earned $6 per hour when she took up the supplement offer. Under Income Assistance, the family would have income of about $12,000 if the mother did not work. Taking up the supplement would nearly double income for this family, from about $12,000 per year to more than $21,000 per year. When the supplement is no longer available, the family's income will decline substantially, to under $15,000 per year, if the mother has not been able to increase her wage but nonetheless persists in working full time and not receiving Income Assistance.

Figure 3.5: Comparison of Income on Income Assistance and Income While Working 40 Hours Per Week in New Brunswick



Source: Calculations based on basic IA benefit levels and federal and provincial tax codes.

Notes: The wage rates examined in New Brunswick are lower due to a lower minimum wage in New Brunswick, and a lower average wage among the sample members in New Brunswick as compared with British Columbia.

Wage rates represent after-tax wage rates.

Factors Other Than Earnings

According to these calculations, substantial wage growth would be needed to encourage supplement takers to continue working even after the supplement is withdrawn, *if earnings are the only motivation for welfare recipients to go to work.* It seems clear, however, that earnings are not the only basis for making this decision. We need look no further than Chapter 2, which shows that some members of the control group moved from welfare to work even though their minimum wage jobs probably left them with less income than under Income Assistance. It is therefore likely that some people who went to work because of the supplement will continue to work when the supplement is no longer available even if their wages increased only modestly.

In addition, many people whose income makes them eligible to receive welfare benefits choose not to do so, even though their income would presumably be higher with welfare payments.[3] One potential explanation for this finding is that welfare is stigmatizing.[4] At the time of random assignment, for example, about 60 percent of the SSP sample said they were ashamed to let people know they were receiving Income Assistance. By getting people to take full-time jobs, the supplement may provide them with a means of remaining off welfare and reclaiming their self-esteem, even if work pays less than welfare.

Reduced child care costs might also help people stay off Income Assistance. At the time of random assignment, about one-quarter of the sample had a youngest child between three and five years of age. By the time these families have used up their three years of supplement receipt, these children will be in school and child care expenses will be considerably less than at random assignment. If the cost of child care had been an important deterrent to leaving welfare for work before entering the program, the reduced child care costs might help convince a program group member to keep the full-time job that SSP encouraged her to obtain.

The 18-month survey provides some information helpful to an understanding of the importance of child care costs. At the 18-month point, the average member of the program group spent $130 per month on child care while working full time, compared with $93 per month in the control group.[5] Since the program increased full-time employment by 15.2 percentage points at its peak, this implies that each person who began working full time because of SSP spent about $240 per month on child care ($37/.152), or about $1.40 per hour for a 40-hour week. In other words, the typical mother who went to work full time in order to receive SSP took home $1.40 less per hour because she had to pay for child care.

Figure 3.4 indicates that income for a typical parent receiving the supplement in British Columbia was initially about $25,000 per year. If the family paid $1.40 per hour for child care, however, its available annual income would have been reduced by nearly $3,000 ($1.40 per hour times 40 hours per week, 52 weeks per year). In other words, after paying for child care, the family would have had only $22,000 available for other spending. Figure 3.4 indicates that income for a full-time worker earning $10 per hour without the supplement would be $20,639. This implies that reducing child care costs when children turn school age might make work pay almost as well as with the supplement even if the wage of a mother in British Columbia increased by only 25 percent from $8 to $10 per hour.

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[3] See Blank and Ruggles, 1996, for example.

[4] See Moffitt 1983, for a discussion of stigma and welfare receipt.

[5] On the 18-month survey, only sample members working full time were asked about child care expenses.

Families with pre-school-age children will have reduced child care costs, but mothers with only teenage children might also find it easier to continue working after the supplement is no longer available. Consider the 20 percent of the sample whose youngest child at random assignment was at least 12 years old. If these mothers had no additional children after random assignment, they will have only older teenage children when the supplement is withdrawn and may find it easier to continue working. In fact, if all of their children were 15 or older at random assignment, they might have no minor children in the home when the supplement is withdrawn.

Another cost ignored by these calculations is the cost of finding and beginning work. As is shown in the section on employment stability, most people who went to work because of SSP continued to work in most of the follow-up period after they first began working. Of course, this impact is due in large part to the continuing incentive offered by the supplement. Nevertheless, when their three years of supplement receipt has ended, many of these people will still be working, and not having to find a new job may convince them to continue working even if their income is less than under SSP.

Descriptive Estimates of Wage Growth

Table 3.2 presents a non-experimental description of how much wages grew between the end of the first year, when the window for initiating supplement payments ended, and the end of the follow-up period examined in this report. In this comparison, the program group and control groups were combined so that the table does not address the question of the effects of SSP. To determine wage growth for a group that was likely to have stable employment, results are presented only for people who worked in two of the three months from months 12–14 (that is, near the end of the first year after random assignment) and in two of the three months from months 32–34 (that is, near the time of the 36-month interview).

In addition to knowing how much wages grew, it is important to know for whom they grew. First, there is a long-standing debate about whether work experience increases wages at all for low-skilled workers. Second, wage growth of 20 percent for someone earning $5 per hour means something different from wage growth of 20 percent for someone earning $10 per hour. The hourly wage for the first worker increases by only $1 per hour, which may be too little to generate long-term effects on employment. In contrast, the wage for the other worker increases by $2 per hour, or more than $4,000 per year for someone working 40 hours per week throughout the year.

To investigate for whom wages grew, Table 3.2 presents results for three groups defined by their expected earnings ability. People who had neither a high school diploma nor five years of work experience prior to random assignment were placed in a low-skills group that was expected to receive low wages. Those who had some post-secondary education and more than five years of work experience prior to random assignment were placed in a high-skills group that was expected to receive high wages. All other sample members were placed in a middle group that was expected to receive moderate wages on average.

Table 3.2: Non-Experimental Comparisons of Wage Growth of Sample Members Who Worked in Months 12–14, by Level of Work-Related Skills

Outcome	Low Skills[a]	Moderate Skills[b]	High Skills[c]
Working in months 32-34 (%)	59.7	72.3	73.0
Cumulative months worked (months 12-34)	16.4	18.4	18.4
Average hourly wage months 12-14 for those working in months 32-34	6.69	7.67	9.90
Average hourly wage months 32-34	7.31	8.49	11.93
Wage growth, months 12-14 to months 32-34 (%)	25.9	16.5	26.3
Wage growth, months 12-14 to months 32-34, trimmed (%)[d]	15.6	14.5	22.8
Sample size (total = 1,103)	**201**	**776**	**126**
British Columbia			
Working in months 32-34 (%)	59.4	70.4	65.8
Cumulative months worked (months 12-34)	15.6	18.2	17.5
Average hourly wage months 12-14 for those working in months 32-34	7.84	8.95	11.54
Average hourly wage months 32-34	8.85	9.95	13.67
Wage growth, months 12-14 to months 32-34 (%)	34.9	18.6	27.1
Wage growth, months 12-14 to months 32-34, trimmed (%)[d]	20.3	14.7	19.2
Sample size (total = 535)	**101**	**358**	**76**
New Brunswick			
Working in months 32-34 (%)	60.0	73.9	84.0
Cumulative months worked (months 12-34)	17.2	18.6	19.9
Average hourly wage months 12-14 for those working in months 32-34	5.51	6.61	7.92
Average hourly wage months 32-34	5.83	7.33	9.76
Wage growth, months 12-14 to months 32-34 (%)	17.2	14.8	25.2
Wage growth, months 12-14 to months 32-34, trimmed (%)[d]	10.3	13.4	24.1
Sample size (total = 568)	**100**	**418**	**50**

Notes: [a] Did not finish high school and had five years or less of working experience.

[b] Did not finish high school and had more than five years of working experience, or finished high school and had no post secondary education, or had some secondary education but had five years or less of working experience.

[c] Had some secondary education and had more than five years of working experience.

[d] The trimmed wage growth measurement eliminates the influence of very high and very low values for wage growth that arise erroneously due to measurement problems. If a person's reported wages fell by more than 35 percent, wage growth for that person was set at -35 percent. If a person's reported wages grew by more than 150 percent, wage growth for that person was set at 150 percent. These points correspond roughly to the 5th and 95th percentiles of the distribution of changes in the control group.

Groups like these could have been chosen more directly based on actual wages. For example, a low-wage group could have included people who earned no more than the minimum wage at the end of the first year of follow-up, while a high-wage group could have included people who earned more than $10 per hour at the end of the first year. This method was not chosen because *measurement error* would have made wage growth appear too large for the low-wage group and too low for the high-wage group. Measurement error is a notorious problem in the study of hourly wages, since wage information for many people must be calculated on the basis of reported earnings and hours worked. To see why this is a problem, consider two people who earned $10 per hour throughout the follow-up period. Suppose the first person initially said she earned $100 per week and worked 20 hours per week. Her initial wage would appear to be only $5 per hour, and she would probably be placed in a low-wage group. Suppose the other person said she earned $100 per week but worked only five hours per week. Her initial wage would appear to be $20 per hour, and she would have been placed in a high-wage group. Finally, suppose each person accurately reported earning $10 per hour at the end of the follow-up period. For the person in the low-wage group, wages would appear to have doubled, even though they actually remained unchanged. For the person in the high-wage group, wages would appear to have fallen by half, even though they too remained unchanged. Thus, results for the low-wage group would overstate the true growth in wages and results for the high-wage group would understate wage growth. Using education and work experience to define the three wage groups avoids a bias from errors such as these as long as people in the low-skill category are no more likely to provide inaccurate information than people in the high-skill category.

The first panel of Table 3.2 indicates that these categories worked reasonably well. The average wage at the end of the first year for people in the low-skills category was only $6.69 per hour, compared with $7.67 for people in the moderate-skills category, and $9.90 for people in the high-skills category.

Average wages grew for all three groups. For people in the low-skills group, average wages increased from $6.69 to $7.31 by the end of the follow-up period. For people in the middle-skills category, average wages grew by a similar proportion, from $7.67 per hour to $8.49 per hour. Average wages grew the most, however, for people in the high-skills category, for whom the average wage of $9.90 at the end of the first year increased to $11.93 at the end of the follow-up period. Thus average wages grew by about 10 percent over the two-year period for the low-skills and middle-skills groups, but by about 20 percent for the high-skills group (not shown in Table 3.2).

The second to last row of the first panel presents average wage growth for the three groups. There is a subtle but important distinction between this measure and the growth in average wages described in the previous paragraph. To calculate the *average wage growth* shown at the bottom of the panel, wage growth was first calculated for each person and then averaged across the sample. To calculate the *growth in average wages*, wages were first averaged across the sample and the growth in that average was then calculated.

An example might make this clearer. Suppose information were available for two people, one of whom earned $4 per hour and one of whom earned $10 per hour at the end of the first year of follow-up. Suppose in addition that wages grew to $10 per hour for the first person and to $18 per hour for the second person. The average wage for this two-person sample would be $7 per hour at the end of the first year (the average of $4 and $10) and $14 per hour at the end of the follow-up period (the average of $10 and $18). As a result, the growth in average wages for this two-person sample would double from $7 to $14, an increase of 100 percent. To determine average wage growth, the wage growth for each person is first calculated, and the average taken across people. For the first person, wage growth was 150 percent (from $4 to $10 per hour); for the second person, wage growth was 80 percent (from $10 to $18 per hour). The average wage growth was therefore 115 percent, or the average of 80 and 150.

In this example, wages grew more for the worker who started out with low wages than for the worker who started out with higher wages. At the same time, the growth in average wages was less than the average wage growth. The two results are connected. When average wage growth is higher than the growth in average wages, wages must have grown more for people who started out with low wages than for people who started out with high wages.[6] Likewise, when average wage growth is lower than the growth in average wages, wages must have grown more for people who started out with high wages than for those who started out with low wages.

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[6] This may also be an artifact of measurement error in wages rather than an indication that wages grew more for the lowest-wage workers.

According to the second-to-last row of the panel, average wage growth over the two years exceeded 15 percent for all three groups. In fact, average wage growth for both the low-skills and high-skills groups was more than 25 percent over the two-year period. As has been discussed, the finding that average wage growth was larger than the growth in average wages implies that wages grew more for people in each group who started with the lowest wages than for those who started with the highest wages.

An examination of wages indicated that wages grew by a very large amount for some people and dropped by a very large amount for others. This may be a result of the measurement error described earlier. A simple way to evaluate the influence of these very high and very low values for wage growth is to "trim" the large changes. If a person's reported wages fell by more than 35 percent, wage growth for that person was set at -35 percent. If a person's reported wages grew by more than 150 percent, wage growth for that person was set at 150 percent. These points correspond roughly with the 5th and 95th percentiles of the distribution of changes in the control group.[7]

The last row of the first panel of Table 3.2 shows that trimming wage growth does make wage growth appear smaller for the low-skills group but does not affect the estimated wage growth for the other two groups. This may imply that a number of people in the low-skills group received legitimately low wages initially, perhaps for jobs such as baby-sitting. Nevertheless, average wage growth still was greater than 15 percent for the low-skills group.

Descriptive Estimates of Wage Growth by Province

As was mentioned in Chapter 1, the minimum wage grew substantially in British Columbia between the beginning of random assignment and the 36-month interview. The minimum wage in New Brunswick also increased, but by much less. Since many people in the low-skills group probably worked at minimum wage jobs, their increased wages may have been an artifact of the large increases in the minimum wage in British Columbia. The second and third panels of Table 3.2 investigate this effect by showing wage growth for the two provinces. If wages grew as much in New Brunswick as in British Columbia for the low-skills group, this would indicate that wages grew for reasons other than the minimum wage. If wages grew more in British Columbia than in New Brunswick, on the other hand, and if average wage growth was similar to the growth in the minimum wage in the two provinces, this might imply that changes in the minimum wage are responsible for all the wage growth for low-skills workers, and that wages did not grow because of their work experience.

Chapter 1 also mentioned that average wages for all workers in British Columbia have been higher than in New Brunswick. This difference is reflected in Table 3.2. While average wages at the end of the first year in British Columbia ranged from $7.84 for low-skills workers to $11.54 for high-skills workers, average wages in New Brunswick were much lower, ranging from $5.51 for low-skills workers to $7.92 for high-skills workers.

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[7] For the provincial results presented in the second and third panels of the table, the cut-off points were -30 percent and 110 percent in British Columbia and -30 percent and 140 percent in New Brunswick.

For moderate- and high-skills workers, wage growth was similar in the two provinces. Focussing on the trimmed wage growth, wages increased by about 15 percent on average for the moderate-skills group in British Columbia and by more than 13 percent in New Brunswick. For the high-skills group, wages increased by close to 20 percent in both provinces.

There is a substantial difference between the provinces, however, in wage growth for low-skills workers. In particular, trimmed wage growth was about twice as high on average in British Columbia (20.3 percent) as in New Brunswick (10.3 percent). Moreover, average wage growth was similar to the growth in the minimum wage in the two provinces. In New Brunswick, the minimum wage increased by 10 percent, from $5.00 to $5.50 per hour, from 1992 through 1998. In British Columbia, the minimum wage increased even more, from $5.50 to $7.15 or 30 percent, from 1992 to 1998. (Since some people were randomly assigned after the minimum wage had already increased and others completed the 36-month interview before the minimum wage had reached its 1998 level, average wages grew less than the overall growth of the minimum wage in British Columbia.) In other words, the wage growth encountered by low-skills workers is consistent with the growth in the minimum wage; it is possible that work experience did not increase wages at all for this group.

Experimental Estimates of the Impact of SSP on Wage Growth

Table 3.3 provides a means of understanding the extent of wage growth caused by SSP. As in Table 3.2, wage growth was measured only for people who worked at least two of the three months from months 12 to 14 and at least two of the three months from months 32 to 34. The first row of the table shows that few sample members met this criterion. For more than 70 percent of the program group and more than 80 percent of the control group, wage growth could not be measured because these people did not work during one or both of the time periods. For another one percent of the sample, wage growth could not be measured because wages were missing at one point or the other. In particular, the first row of the table indicates that SSP increased the proportion for whom wage growth could be measured by 8.6 percentage points. The remainder of the table investigates whether that 8.6 percent of the sample experienced large or small wage growth.

SSP appears to have increased wage growth at both the high end and the low end. For example, 3.9 percent of the control group had wage increases of less than 5 percent, compared with 6.1 percent of the program group. Thus, 2.2 percent of the program group went to work because of the supplement offer *and* had wage growth of less than 5 percent over the nearly two-year period between months 12 to 14 and months 32 to 34. Such low wage growth by itself is unlikely to convince anyone to continue working when she can no longer receive the supplement. SSP also significantly increased the proportion of the sample with relatively high wage growth, however. In particular, SSP increased slightly the proportion of the sample with very high wage growth — exceeding 20 percent — over two years. Such high wage growth may be enough by itself to encourage these few people to continue working when the supplement expires. SSP had its largest effect on moderately high wage growth of 10 to 20 percent. While this level of wage growth is probably not large enough to encourage continued full-time work on its own, it might be sufficient if combined with stigma, reduced child care costs, and changed attitudes to work and welfare.

Table 3.3: SSP Impacts on the Distributions of Wage Growth Between the End of Year 1 and End of Year 3

Outcome	Program Group	Control Group	Difference (Impact)		Standard Error
Wage growth for all workers (% in each category)					
Did not work	72.3	80.9	-8.6	***	1.2
Worked but wage unreported	1.0	1.3	-0.4		0.3
Wage decreased	6.7	5.7	1.1		0.7
Wage increased less than 5 percent	6.1	3.9	2.2	***	0.6
Wage increased 5 to 10 percent	3.3	1.8	1.4	***	0.4
Wage increased 10 to 20 percent	5.8	2.9	2.9	***	0.6
Wage increased more than 20 percent	5.9	4.8	1.1	*	0.6
Wage growth for full-time workers (% in each category)					
Did not work full-time	81.8	91.8	-10.0	***	1.0
Worked full-time but wage unreported	0.5	0.5	0.0		0.2
Wage decreased	3.9	2.2	1.8	***	0.5
Wage increased less than 5 percent	3.8	1.5	2.4	***	0.5
Wage increased 5 to 10 percent	2.3	0.9	1.5	***	0.4
Wage increased 10 to 20 percent	4.4	1.2	3.1	***	0.5
Wage increased more than 20 percent	3.8	2.5	1.3	***	0.5
Sample size (total = 4,961)	**2,503**	**2,458**			

Source: Calculations from baseline survey data, and 18-month and 36-month follow-up survey data.

Notes: Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a] Sample members in this category were employed during the month but did not report enough information about hours worked and/or earnings for the outcome in question to be calculated.

[b] In British Columbia, the minimum wage was $5.50 per hour from the beginning of the random assignment period in November 1992 until April 1993, when it rose to $6.00. In March 1995, it was increased to $6.50 and, in October 1995, it increased again to $7.00 per hour. In New Brunswick the minimum wage was $5.00 per hour from 1992 to 1995. In January 1996, it increased to $5.25 and, in July 1996, it rose again to $5.50.

The second panel of the table presents similar results for people who were working full time in the period from months 12 to 14. Since SSP's main employment effect was to encourage full-time work, and since wages tend to increase more from full-time work than from part-time work, this sample may reveal more wage growth than the prior results. The panel tells a very similar story, however. SSP increased the proportion of the sample working full time in months 12 to 14 and in months 32 to 34 by 10 percentage points. As in the prior table, wage growth stemming from the extra full-time employment is spread throughout the distribution, although almost half of the increase is relatively high (10 to 20 percent over the nearly two-year period) or very high (more than 20 percent). This provides further indication that wage growth stemming from SSP may contribute somewhat to prolonged impacts of the program on employment.

ATTITUDES ABOUT WORK AND WELFARE

Along with the hope that employment generated by SSP would increase wages, the designers of the supplement held the hope that three years of full-time employment would also change the attitudes of welfare recipients toward work and welfare. Attitudes about welfare may not have needed much changing; on the baseline survey, about 60 percent of sample members said they were ashamed to admit to others that they were on welfare.

Because many people in the experiment had been on welfare for many years and away from work for much of this time, their feelings about work might have been improved by going to work. They might have found that their children enjoyed spending time outside the home, or that their children were developing better by being in child care. They might have found that they enjoyed work more than they thought they would, or that earning their income increased their self-esteem.

A study by Bumpass (1982), although old, provides an interesting example of changes such as these. Bumpass interviewed a number of mothers of young children at two points in time. Initially, most mothers feared the negative consequences of putting their children into someone else's care if they went to work. Nevertheless, a number of them did go to work, and those who did had generally favourable things to report. Their fears about child care were generally unfounded, and they and their children seemed better off emotionally as well as financially because of their decision to go to work. Mothers who had not gone to work, however, exhibited the same fears during the second interview as during the first. While it is impossible from two interviews to know exactly what caused these changes in attitudes about work and child care, the results were consistent with the notion that going to work directly influenced those attitudes.

The 36-month interview included six questions that might reveal the influence of SSP on attitudes that might influence work and welfare decisions. Table 3.4 presents findings about the responses to these questions. According to the table, the program seems to be associated with slight changes in personal attitudes, but that association is somewhat weak.

Table 3.4: SSP Impacts on Attitudes About Welfare, Work, and Self-Efficacy at Month 36

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Agree or strongly agree (%)				
"It's wrong to stay on welfare if you can get a job even if you do not like it."	83.0	83.6	-0.6	(1.1)
"I am ashamed to admit to people that I am on welfare."	49.0	51.5	-2.4 *	(1.4)
"I have little control over the things that happen to me."	25.8	26.1	-0.4	(1.3)
"I often feel angry that people like me never get a fair chance to succeed."	41.0	42.4	-1.4	(1.4)
"Sometimes I feel that I'm being pushed around in life."	43.5	45.3	-1.9	(1.4)
"There is little that I can do to change many of the important things in my life."	34.0	37.8	-3.8 ***	(1.4)
Self-efficacy scale[a]	10.7	10.5	0.2 ***	0.1
Sample size (total = 4,937)[b]	**2,493**	**2,444**		

Sources: Calculations from 36-month follow-up survey data.

Notes: Two-tailed t-tests were applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a] Self-efficacy scale is the sum of responses to four statements: "I often feel angry that people like me never get a fair chance to succeed," "I have little control over the things that happen to me," "Sometimes I feel that I'm being pushed around in life," and "There is little that I can do to change many of the important things in my life." For each question, strong agreement was given a value of 1, agreement a value of 2, disagreement a value of 3, and strong disagreement a value of 4.

[b] The sample size is only 4,938 because 24 people (14 in the control group, 10 in the program group) have missing values for all six questions asked above.

The first two rows of the table summarize responses to two questions that might reveal people's feelings about welfare. The first asked respondents to judge whether it was right to "stay on welfare if you can get a job even if you do not like it." The second may provide a more direct measure of their feelings of stigma from welfare; it asked whether they were "ashamed to admit to people that I am (was) on welfare." Nearly all members of both research groups thought it was wrong to continue on welfare if you could find a job, and the difference between the two groups was not statistically significant. About half of both groups indicated shame from having been on welfare. The difference between the two groups, although marginally significant, was still relatively small.

The next four rows of the table summarize responses to four questions about sample members' feelings of self-efficacy, or the ability to control events in their lives. Again, differences between the two research groups were fairly small. The greatest difference emerged for the final question, which asked people whether they agreed with the statement "There is little I can do to change many of the important things in my life." While 37.8 percent of the control group agreed or strongly agreed that there was little they could do, 34.0 percent of the program group agreed or strongly agreed, a difference of 3.8 percentage points.

The final row of the table puts the four questions related to self-efficacy into a scale. Responses to each question were coded so that strong agreement received a score of 1, agreement a score of 2, disagreement a score of 3, and strong disagreement a score of 4. Responses to the four questions were added up, resulting in an outcome ranging from 4 for a person who strongly agreed with all four statements to 16 for a person who strongly disagreed with all four questions. If someone agreed with all four statements, she received a score of 8; if she disagreed with all four statements, she received a score of 12. For both research groups, the average score on this scale was between 10 and 11, indicating that the average person leaned slightly toward agreeing that she had control over her life. The difference between the two groups, however, was statistically significant at the one percent significance level, most likely reflecting the significant differences in responses to the last question.

It is difficult to know what to make of these comparisons. On the one hand, members of the program group did express more positive attitudes about their circumstances than did control group members. If these differences are concentrated among the 35 percent of the program group who took up the supplement, the differences would be three times as large for this group. Moreover, if the program really did change attitudes about work and welfare, the questions from the 36-month survey would provide very noisy measures of those changes. The finding of any differences is therefore remarkable.

On the other hand, differences in attitudinal responses were quite small, and the smattering of statistically significant differences may be subject to the claim that if 10 differences are examined, one is likely to be statistically significant at the 10 percent significance level. In addition, these small differences emerged while members of the program group were receiving supplement payments. When they are no longer eligible for the supplement, their ability to change "important things" will be substantially less, and differences between the two groups may disappear.

MARITAL STATUS

Along with providing an incentive to work full time, SSP's supplement made marriage more financially attractive than did Income Assistance. Because Income Assistance takes into account the income from a husband when determining eligibility and grant amounts, the presence of a spouse or partner may cause a reduction or elimination of the grant. SSP removes this marriage penalty by disregarding any income contributed by a husband or common-law spouse. In other words, the SSP program design removes the marriage disincentives associated with Income Assistance.

This may be an important feature of the supplement. Because marriage is one route off of dependence on public assistance and because research suggests that children benefit from living in a two-parent family, policy-makers and the public favour programs that encourage marriage and oppose programs that encourage one-parent families.[8] This response was demonstrated by the controversial marital findings from the Negative Income Tax (NIT) experiments in the 1970s. The NIT was a guaranteed income program that was found to increase marital disruption among low-income couples in two U.S. sites, Seattle and Denver (Groeneveld, Tuma, and Hannan, 1980).[9] By the time a re-analysis of the NIT data called these original findings into question, they had already fuelled opposition to this welfare reform approach (Cain and Wissoker, 1990).[10]

If SSP increases marriage and if a spouse contributes financially to family resources, IA recipients may also be less likely to rely on welfare once their supplement payments end, even if their wages have not increased. In other words, an increase in marriage may facilitate long-term independence from Income Assistance and result in long-term impacts on other outcomes such as employment and earnings. This section investigates the impacts of SSP on marital status during the first three years after random assignment. Although three years is a relatively short time in which to evaluate impacts on marital behaviour, the effects of SSP within three years may still somewhat foreshadow long-term differences in the incidence of these relationships.[11]

Why and How Might SSP Be Expected to Affect Marriage and Common-Law Relationships?

Although the supplement was structured to encourage marriage by disregarding the earnings of a spouse or partner, there are other ways in which SSP might have increased or decreased the incidence of marriage. By increasing full-time employment, SSP might have expanded social networks and exposed program group members to potential partners through work. By increasing income, SSP might have facilitated marriage and common-law unions by alleviating financial difficulties, a major source of conflict in relationships, or by allowing couples to afford marriage. This is often referred to in the literature on marriage as an "income effect." SSP might also have increased the appeal of welfare recipients to potential partners by increasing self-esteem and feelings of self-sufficiency through employment or enhancing attractiveness through increased income.

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[8] Empirical evidence suggests that children in one-parent families are disadvantaged on a broad array of outcomes compared with two-parent families. The effects of SSP on family structure and children are addressed in a companion report about the effects of SSP on children (Morris and Michalopoulos, 2000).

[9] A finding that received little attention but is more directly relevant to SSP is that the NIT experiments had no significant effect on marriage formation among those single at the outset of the program (Hannan, Tuma, and Groeneveld, 1977)

[10] The reanalysis showed that the strongest marital dissolution effects were for childless couples who would not have been included in the SSP sample. Reanalysis has also called into question whether it was the guaranteed income or other program components that encouraged marital dissolution. Also note that the NIT experiment and analyses were not specifically focussed on welfare recipients.

[11] It is also possible that SSP may alter the timing of marriage but not the incidence of marriage over a long time-frame.

On the other hand, even though SSP did not penalize marriage, increased income and increased employment might have decreased the likelihood of marriage. SSP might have decreased marriage if increased time spent in full-time employment detracted from time available to meet and get to know potential spouses or partners.[12] By increasing income, SSP may have allowed program group members to stay single by enabling them to more easily forgo additional income from a spouse or partner. This is often referred to as an "independence effect." For example, in focus groups conducted as part of SSP, women reported that financial independence allowed them to leave abusive relationships (Bancroft and Vernon, 1995). Another possibility is that SSP might have encouraged women to delay marriage and instead focus on increasing their human capital through work.

Impacts of SSP on Marriage and Common-Law Relationships

Figures 3.6 through 3.8 and tables 3.5 through 3.7 show impacts on marriage during three years of follow-up. Marriage and common-law relationships are combined in most of the analyses (and the joint outcome will be referred to simply as marriage). In Canada, couples that live together for at least one year and are not legally married are considered common-law partners, and common-law relationships generally entail similar rights and responsibilities as marriage.[13]

Figure 3.6 shows that SSP did not have an impact on marital unions at any point during the three-year follow-up period. A similar percentage of program and control group members was married in each of the 36 months of follow-up. Furthermore, as is seen in Table 3.5, SSP had no impact on the number of months that people were married on average, the proportion who were ever married during the follow-up period, or the proportion who were married at the time of the 36-month interview. These findings are similar to those presented in the SSP 18-month report (Lin et al., 1998).

Although SSP had no overall effect on marriage, early findings from the SSP 18-month report showed that the likelihood of marriage differed by province. Provincial differences in the effect of SSP on marriage are similarly found during the 36-month follow-up period. SSP had a positive effect on ever being married during the follow-up period in New Brunswick and a negative effect in British Columbia. Table 3.5 shows that in British Columbia over the entire 36-month follow-up period, SSP decreased the probability of ever being married by three percentage points, an 18 percent decrease relative to the control group. In contrast, in

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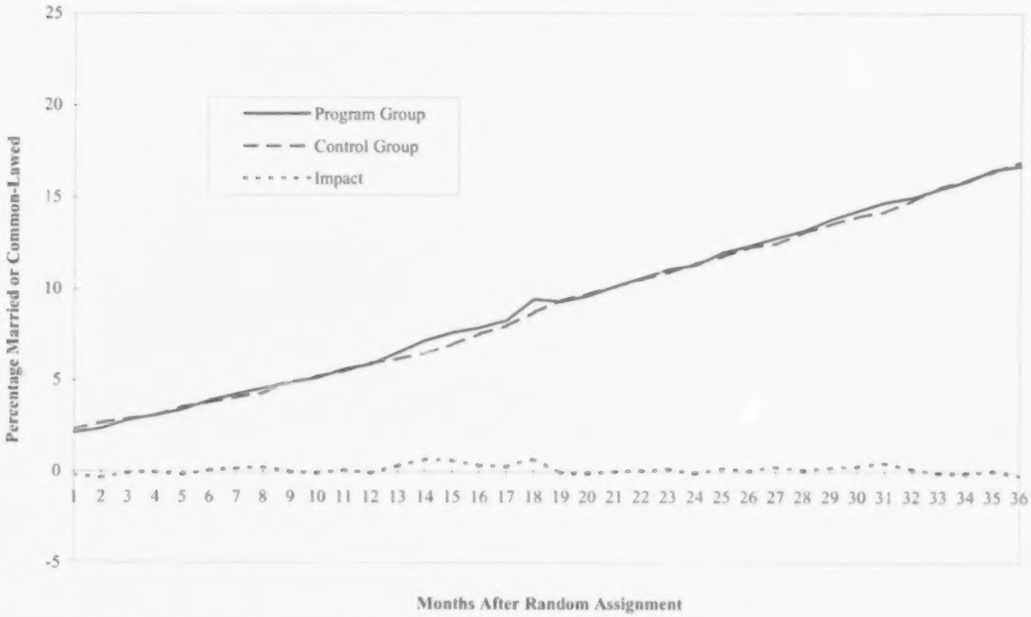
[12] An excerpt from the focus group report supports this theory: "A number of participants said that the amount of time spent working left no time for a social life. . . . As one woman said, 'You work six nights a week, you have no time for boyfriends'" (Bancroft and Vernon, 1995, p. 45). However, this section of the report also noted that there were exceptions. Four women were married or about to be married, and one said she never would have met her husband without SSP.

[13] For example, marital and common-law couples are treated the same by the IA system. In addition, in the event of separation common-law partners have joint custody of biological children, and they may even be obligated to pay child support for stepchildren.

New Brunswick SSP increased the probability of ever being married during the follow-up period by four percentage points, a 20 percent increase relative to the control group.

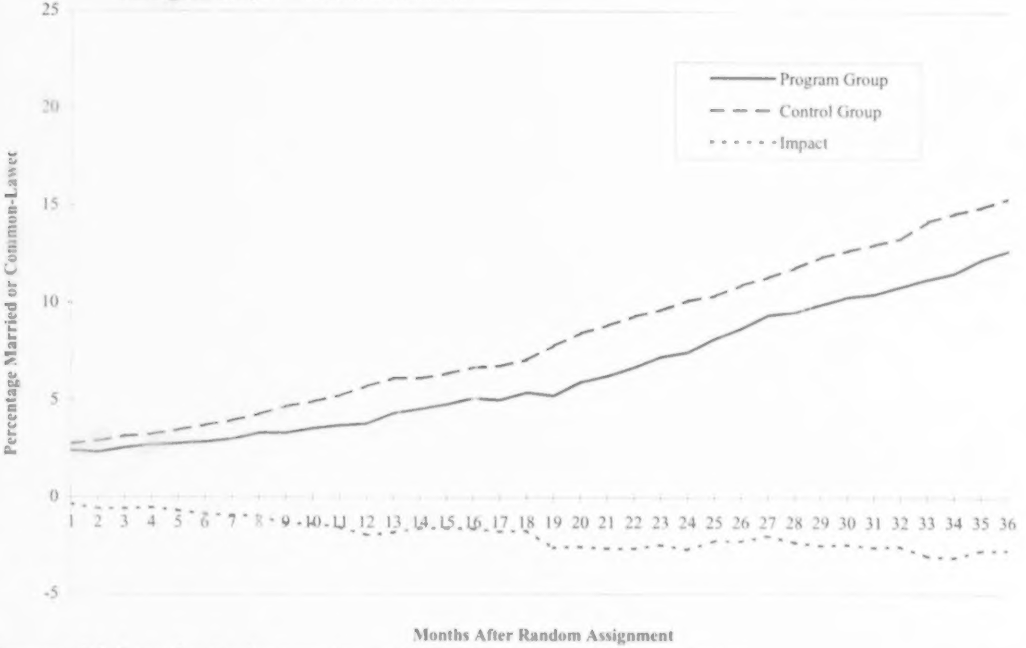
Figure 3.6: Percentage Married or in Common-Law Unions, by Month From Random Assignment



Sources: Calculations from baseline survey data, and 18-month and 36-month follow-up survey data.

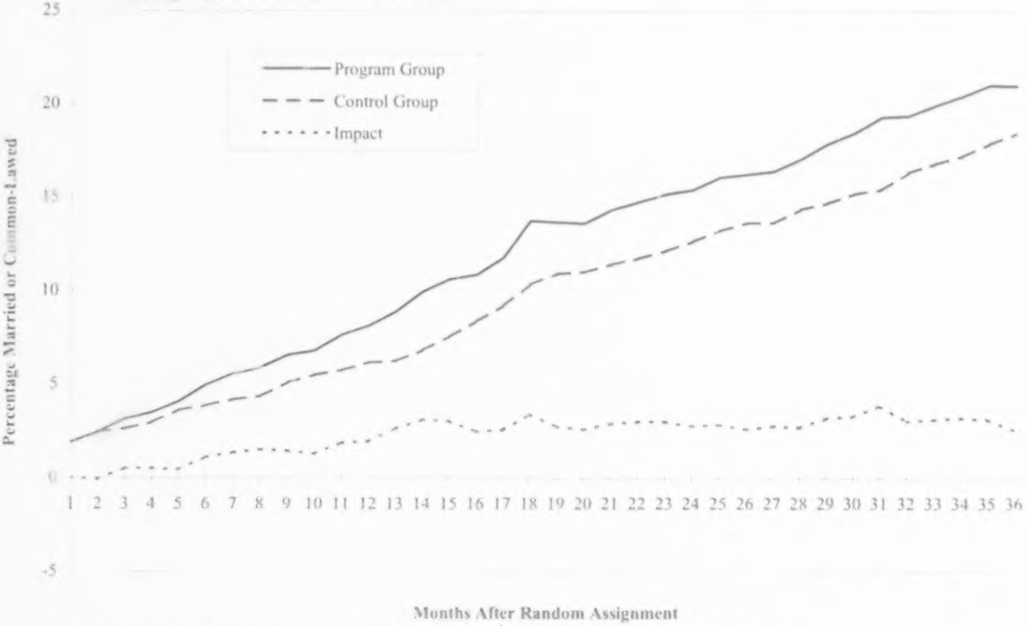
In the last month of follow-up, the impact on marriage was still negative in British Columbia and positive in New Brunswick but was statistically significant only in British Columbia. Although SSP's impacts on marital status were not statistically significant at the time of the 36-month interview, the impacts were fairly consistent over time in both provinces. Figure 3.7 shows that in British Columbia SSP had a consistently negative effect on marriage in each month during the follow-up period. Moreover, this effect was statistically significant in all but one month from month 10 through 36 (statistical significance is not shown in the figure). Figure 3.8 shows that in New Brunswick, the impacts on marriage were consistently positive. SSP increased marriage in every month of follow-up. The positive impact on marriage in New Brunswick grew over time. It achieved statistical significance in month 11 and remained significant through month 35.

Figure 3.7: Percentage Married or in Common-Law Unions, by Month From Random Assignment, in British Columbia



Sources: Calculations from baseline survey data, and 18-month and 36-month follow-up survey data.

Figure 3.8: Percentage Married or in Common-Law Unions, by Month From Random Assignment, in New Brunswick



Sources: Calculations from baseline survey data, and 18-month and 36-month follow-up survey data.

Table 3.5: SSP Impacts on Marriage and Common-Law Unions Over Three Years of Follow-Up

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Marriage since random assignment				
Ever married or in common-law relationship (%)	19.5	19.2	0.3	(1.1)
Number of months married or in common-law relationship	3.3	3.3	0.0	(0.2)
Married or common-law at 36-month interview (%)	17.4	17.3	0.1	(1.1)
Married at 36-month interview	8.8	9.5	-0.6	(0.8)
Common-law relationship at 36-month interview	8.6	7.8	0.8	(0.8)
Sample size (total=4,961)	**2,503**	**2,458**		
Marriage in British Columbia since random assignment				
Ever married or in common-law relationship (%)	14.6	17.7	-3.1 **	(1.5)
Number of months married or in common-law relationship	2.3	3.0	-0.7 **	(0.3)
Married or common-law at 36-month interview (%)	13.5	15.5	-2.0	(1.4)
Married at 36-month interview	7.7	9.7	-2.0 *	(1.1)
Common-law relationship at 36-month interview	5.8	5.8	0.0	(0.9)
Sample size (total=2,537)	**1,296**	**1,241**		
Marriage in New Brunswick since random assignment				
Ever married or in common-law relationship (%)	24.8	20.7	4.1 **	(1.7)
Number of months married or in common-law relationship	4.4	3.5	0.8 **	(0.4)
Married or common-law at 36-month interview (%)	21.6	19.1	2.5	(1.6)
Married at 36-month interview	10.0	9.3	0.7	(1.2)
Common-law relationship at 36-month interview	11.6	9.9	1.7	(1.3)
Sample size (total = 2,424)	**1,207**	**1,217**		

Sources: Calculations from 18-month and 36-month follow-up survey data.

Notes: Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.
Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.

One way to better understand these differences in marital behaviour between the provinces is to analyze marital effects for key subgroups defined by baseline characteristics. Subgroup analysis is one method to test, for instance, hypotheses about the effect of extra income or the effect of increased employment on marriage. Tables 3.6 and 3.7 present, for British Columbia and New Brunswick, respectively, results for subgroups defined by baseline characteristics such as age, age of youngest child, employment, education, and marital status at baseline.

SSP's effect on marriage in British Columbia was negative for all but one subgroup, but the program's impact was not statistically significant for most subgroups. The magnitude of impacts was fairly consistent across subgroups, rather than being concentrated among certain groups. Relative to the control group, the negative impact on marriage was slightly larger for the older age groups, the previously married, and those not working at baseline. SSP decreased the probability of remarriage (among those who were separated or divorced at baseline) more than the probability of first marriage (among those who were never married at baseline). The decrease in marriage for those not working at baseline provides some evidence against the hypotheses that increasing work will increase marriage through social networks or through increased self-esteem, since SSP also increased employment for this subgroup.

Table 3.6: SSP Impacts on Marriage, Cumulative Income, and Months Employed Full Time, by Subgroup, in British Columbia

Subgroup	Sample Size	Ever Married During Follow Up (%) Control Group	Ever Married During Follow Up (%) Difference (Impact)	Cumulative Income ($) Control Group	Cumulative Income ($) Difference (Impact)	Total Full-Time Employment (Months) Control Group	Total Full-Time Employment (Months) Difference (Impact)
Age of sample member							
19-24	470	20.0	2.3	36,902	5,413 ***	4.9	3.5 ***
25-29	530	24.4	-5.3	38,105	5,600 ***	5.0	2.6 ***
30-39	1,052	17.3	-4.1 *	38,903	4,902 ***	4.9	2.9 ***
40 and over	480	9.6	-4.0 *	34,485	6,299 ***	4.2	3.2 ***
Age of youngest child							
0-2	788	20.4	-3.3	37,978	5,046 ***	3.8	3.3 ***
3-11	1,296	18.1	-3.3	38,321	5,423 ***	5.4	2.6 ***
12-15	263	10.0	-0.9	37,298	5,081 **	4.9	3.0 **
16 and over	156	13.0	-2.7	31,157	6,277 **	5.4	3.2 *
Employment status at baseline							
Full-time	171	23.9	-2.2	49,706	7,626 **	20.2	1.3
Part-time	309	18.2	-1.4	42,447	8,470 ***	7.5	3.2 ***
Not employed, looking for work	561	17.8	-3.1	36,848	6,926 ***	4.1	4.9 ***
Neither employed nor looking for work	1,488	16.9	-3.5 *	35,836	4,254 ***	2.5	2.7 ***
Enrolled in education/training at baseline							
Yes	391	19.7	-2.9	38,880	9,594 ***	5.5	4.5 ***
No	2,143	17.3	-3.1 **	37,283	4,639 ***	4.6	2.7 ***
Marital status							
Never married	1,104	15.1	-1.5	38,272	5,086 ***	5.0	2.6 ***
Separated/divorced	1,372	16.0	-4.0 **	37,315	5,276 ***	4.6	3.1 ***
Number of children							
One child	1,242	16.4	-1.6	35,949	5,489 ***	5.4	2.8 ***
Two children	849	19.2	-4.5 *	38,281	5,462 ***	4.2	3.2 ***
Three or more children	419	15.5	-2.7	41,691	3,685 ***	3.7	2.9 ***

Sources: Calculations from IA administrative records, payment records from SSP's Program Management Information System, baseline survey, and 18-month and 36-month follow-up surveys.

Notes: A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. Rounding may cause slight discrepancies in sums and differences.

Table 3.7: SSP Impacts on Marriage, Cumulative Income, and Months Employed Full Time, by Subgroup, in New Brunswick

		Ever Married During Follow Up (%)		Cumulative Income ($)		Total Full-Time Employment (Months)	
Subgroup	Sample Size	Control Group	Difference (Impact)	Control Group	Difference (Impact)	Control Group	Difference (Impact)
Age of sample group member							
19-24	624	28.1	4.0	24,801	6,322 ***	4.9	4.3 ***
25-29	507	26.5	6.6	27,536	4,035 ***	5.8	3.7 ***
30-39	885	18.2	2.6	28,127	4,163 ***	5.7	3.4 ***
40 and over	405	7.6	3.8	24,460	5,210 ***	5.0	2.7 ***
Age of youngest child							
0-2	707	27.5	4.8	26,111	4,461 ***	5.0	3.7 ***
3-11	1,167	21.2	2.7	26,730	5,268 ***	5.5	3.9 ***
12-15	306	11.7	5.4	27,249	5,241 ***	5.6	3.8 ***
16 and over	212	8.2	9.5 **	26,272	3,246	6.5	1.1
Employment status at baseline							
Full-time	165	16.7	14.0 **	35,592	9,465 **	19.7	4.3 **
Part-time	325	21.7	2.7	31,648	8,285 ***	7.8	6.0 ***
Not employed, looking for work	545	24.3	5.7	26,139	5,011 ***	6.0	3.4 ***
Neither employed nor looking for work	1,373	19.3	3.4	24,584	3,702 ***	2.6	3.4 ***
Enrolled in education/training at baseline							
Yes	298	20.1	11.4 **	27,799	4,938 **	6.7	3.6 ***
No	2,126	20.8	3.0 *	26,337	4,865 ***	5.2	3.6 ***
Marital status							
Never married	1,311	19.4	5.0 **	26,819	4,661 ***	5.0	3.9 ***
Separated/divorced	1,069	19.2	3.3	26,264	4,992 ***	5.9	3.1 ***
Number of children							
One child	1,421	19.6	5.4 **	26,218	4,855 ***	6.0	3.2 ***
Two children	738	22.1	4.0	26,759	5,558 ***	5.0	4.2 ***
Three or more children	260	23.0	-3.2	27,423	3,091 **	3.6	3.5 ***

Sources: Calculations from IA administrative records, payment records from SSP's Program Management Information System, baseline survey, and 18-month and 36-month follow-up surveys.

Notes: A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. Rounding may cause slight discrepancies in sums and differences.

In New Brunswick, SSP's effect on marriage was positive for all but one subgroup, but the magnitude of the positive impact varied across subgroups. Of all the subgroups analyzed, the only one that experienced a decrease in marriage was the subgroup with three or more children at baseline, but this impact was not statistically significant. Since the SSP benefit does not increase with family size, SSP is least generous relative to Income Assistance for this subgroup of large families. The largest positive impact on marriage, 14 percentage points, was found for recipients who were employed full time at baseline, a group for which impacts on income were much larger than increases in employment.

Why was the direction of SSP impacts on marriage and common-law unions negative in British Columbia and positive in New Brunswick throughout the 36 months of follow-up? Even though theory predicts that SSP's effects on marriage may be negative or positive, it is difficult to explain why SSP's effects on marriage vary by province. Several possible explanations were investigated. First, baseline characteristics were somewhat different in the two provinces, but those differences do not appear to explain the impacts on marriage. Second, the impacts on income and full-time employment do not greatly vary across subgroups that show varying impacts on marriage. Third, the marriage penalty related to IA benefit levels did not greatly differ by province.

Differences in impacts on marriage and common-law relationships between the provinces may be related to differences in the opportunities for marriage in the two provinces. The number of potential spouses and the characteristics of available spouses may have affected the likelihood that SSP recipients chose to marry. Over a time period similar to the follow-up, the ratio of unmarried men to women was similar in New Brunswick and British Columbia, but the unemployment rate for men in New Brunswick was considerably higher than for men in British Columbia. Differences in the unemployment rates of men in the two provinces may have affected impacts on marital or common-law unions in at least two ways. One possibility is that in New Brunswick, where the unemployment rate for young men was high, women's employment and income from SSP may have made members of the program group particularly desirable marriage partners. In British Columbia, where men's labour market position was stronger, women's employment and earnings may have been relatively less important. A second theory is that in British Columbia, SSP recipients may have perceived more marital opportunities, which gave them the freedom to delay their marital decision. In New Brunswick, where employed partners were relatively scarce, women may have been more eager to form unions, and increased income through SSP may have helped them to do so.

Another possible explanation for differences in SSP's impact on marriage is differences in unobserved cultural characteristics in the two provinces. In addition to geographic differences, New Brunswick and British Columbia are composed of very different populations. For example, New Brunswick is relatively more rural, and the majority of the population is Roman Catholic (Statistics Canada, 1993a). In comparison, British Columbia is dominated by Vancouver and its suburbs, and less than 20 percent of the population is Roman Catholic (Statistics Canada, 1993b). Characteristics such as these may affect differences in marital norms in the two provinces. Although overall rates of marriage in the two provinces are similar, the average age at marriage is one year older in British Columbia than in New Brunswick. Comparing rates of marriage in the control groups in the two provinces shows that marriage was much more common in the New Brunswick sample than in British Columbia. Unobserved differences in marital norms in the provinces may therefore play a role in translating employment and earnings impacts into either positive or negative marital impacts.

Summary of Impacts on Marital Status

SSP removed the marriage disincentive inherent in the welfare system by disregarding the income of a spouse in determining the supplement amount. At the same time, SSP increased income and full-time employment, thus dramatically altering the structure of recipient's lives. These changes may have led to program effects on marriage; if so, these would be of interest, because the financial contribution of a spouse or partner may facilitate long-term independence from Income Assistance.

Overall, SSP did not affect the incidence of marriage, but SSP had consistent effects on marriage over three years of follow-up in each province — consistently positive in New Brunswick and consistently negative in British Columbia. The opposite direction of impacts by province underscores the importance of the geographic and cultural context in translating employment and earnings impacts into effects on family structure. Although provincial differences in marriage were significant in most follow-up months, they were not statistically significant in the last month of follow-up in New Brunswick. Thus, at this point it is difficult to determine whether or not SSP's impacts on marriage will persist or decay over a longer time period.

SUMMARY

This chapter attempted to foreshadow the longer-term effects of SSP on employment by looking at four outcomes: employment stability, wage growth, attitudes, and marital status. For each measure, there was not only something to be optimistic about, but also reason to be cautious.

SSP not only increased full-time employment but to a great extent increased full-time employment that was quite stable, lasting a year or more. In addition, SSP increased months of full-time employment, primarily by increasing the number of people who were ever employed full time. If these extra workers are able to continue to work full time, SSP may generate quite large impacts on full-time employment even when the supplement is no longer available. On the other hand, the fact that more people in the program group were working full time most of the time may reflect only the short-term nature of the supplement's incentive. When the supplement is withdrawn, its incentive will also be withdrawn, and it is possible that many members of the program group will see little reason to continue working full time.

SSP also generated a fair amount of wage growth. About half of the extra employment generated by SSP resulted in wages that grew by 10 percent or more over a two-year period of time. Such wage growth is unlikely to make work pay better than welfare after the supplement is withdrawn, but it might make work pay just well enough to persuade members of the program group to keep their full-time jobs. On the other hand, if people in the sample are primarily motivated by financial concerns, this wage growth is unlikely to be large enough to generate long-term impacts on employment.

If, however, this modest wage growth is combined with modest changes in attitudes about work and welfare, the combined effect might produce long-term impacts for SSP. Again, there may be reason for very cautious optimism. Three years after random assignment, members of the program group indicated they felt greater control over their lives. If this greater control persuades or allows them to continue working when the supplement is withdrawn, SSP may again generate long-term impacts.

Finally, SSP might have affected the marriage decisions of the single parents who were randomly assigned. In New Brunswick, more members of the program group married at some point after random assignment than did members of the control group. Since married couples are less likely to receive Income Assistance than single-parent families, this small impact on marriage may help SSP maintain its impact in the long-run. The impact on marriage in New Brunswick, however, was fairly small. In addition, when the samples from both provinces are combined, the program's impact on marriage is virtually nil. Thus, it is unclear how much weight to place on the small difference that did emerge in New Brunswick.

Although these results provide some reason for cautious optimism, they cannot reveal whether SSP will have impacts after the supplement is withdrawn because information is not yet available for that longer follow-up period. Readers will have to look for the next report in this series on the SSP recipient experiment to find the initial answer to that question.

Chapter 4:

Digging Deeper Into the Caseload — A Non-Experimental Investigation of Wage Growth

When people in the control group went to work or left welfare, they did so without the motivation of the SSP supplement. They were probably the ones who could earn enough to make work pay better than welfare, the ones who most wanted to return to work as soon as a temporary barrier was removed, or the ones who had the strongest feelings of stigma about welfare and were therefore happy to leave the welfare rolls. When SSP increased employment, moreover, it probably did so by "digging deeper" into the caseload, convincing people who had not worked in some time not only to go to work but also to work full time, or persuading those with few years of education to take work even though they were likely to find only low-wage jobs. That is, the people SSP encouraged to go to work probably had less earnings potential than those in the control group who went to work; they probably had less previous work experience and weaker feelings of stigma.

It is impossible to determine directly whether SSP "dug deeper," because it is impossible to know who was convinced by the supplement to change her behaviour and who was merely doing what she would have done without the supplement. Nevertheless, it is possible to infer the characteristics of the people who went to work because of the supplement offer by making use of a feature of the random assignment experiment: the characteristics of members of the control group who worked without the supplement offer are the same on average as the characteristics of members of the program group who would have worked even in the absence of the supplement offer. Differences between working members of the program group and working members of the control group must therefore be due to the characteristics of the people who were motivated by the supplement to go to work.

This chapter investigates two of the ramifications of this observation. First, the notion that SSP "dug deeper" is investigated and quantified by inferring the baseline characteristics of people who went to work because of the supplement offer. Second, wages for this group of supplement responders are calculated and compared over time to indicate how much wage growth they experienced. If wages have grown substantially, this growth could help SSP produce a long-term impact on employment behaviour and its related outcomes. Several of the results follow.

Reader beware. Unlike the other results in this report, the results in this chapter are non-experimental; they are based on comparisons of portions of the program group and control group that were quite different prior to random assignment. Although the derivation of the results in this chapter makes use of the consequences of random assignment, the results are based on comparisons of those who worked after random assignment. Since the program increased employment substantially, people in the program group who worked are likely to be quite different from people in the control group who worked. Indeed, one of the purposes of this chapter is to note these differences.

- **SSP's supplement offer encouraged work among the people least likely to work on their own.**

Workers in the program group had less work experience than workers in the control group. They had fewer years of work experience, were less likely to have worked in the year prior to random assignment, and were less likely to be working at the time of random assignment. In fact, almost nobody who was motivated by the supplement offer to go to work was already working at the time of random assignment. Thus, SSP's impact on employment came about by encouraging people who were not working at all to begin working 30 hours or more per week. In other respects, however, people who went to work because of the supplement were similar to people who would have worked anyway. They were about equally likely to have been on welfare for three or more years, to have been on welfare as a child, to have never married, and to have very young children, for example.

- **Wage growth for people who went to work because of the supplement offer was similar to wage growth for people who would have worked without the supplement offer.**

For members of the control group who worked both at the end of the first year of follow-up and at the end of the third year, wages grew 12.7 percent on average over the two-year period. Among members of the program group with the same work history, wages grew 12.4 percent on average. As has been noted, any differences between outcomes for workers in the control group and workers in the program group must be due primarily to people who went to work because of the supplement offer. By the same token, the similarity in wage growth outcomes implies that for those who changed their work decision because of the supplement offer, wages grew as much as others' wages, even though they had considerably less work experience to start with.

INFERRING OUTCOMES FOR PEOPLE WHO WENT TO WORK BECAUSE OF THE SUPPLEMENT OFFER

Figure 4.1 is intended to clarify how the characteristics of people who worked because of the supplement offer will be inferred. The idea is that people in the program group who would have worked in the absence of the supplement offer have the same characteristics as people in the control group who did work after random assignment, in the absence of the supplement offer.

To demonstrate how this reasoning helps identify the characteristics of those who were motivated to work by the supplement offer, the left half of the figure separates the program group into two parts, based on whether or not members of the group worked in months 12 through 14, near the end of the first year and beginning of the second year after random assignment.[1] One part of the group did not work at that time; the second part did. The right half of the figure likewise separates the control group into two parts: those members who did not work at the end of the first year and those who did. The top half of the figure therefore repeats a familiar result: the program increased employment. While 28.1 percent of the control group (representing 691 people) worked in months 12 to 14, 40.6 percent of the program group (representing 1,015 people) did so.

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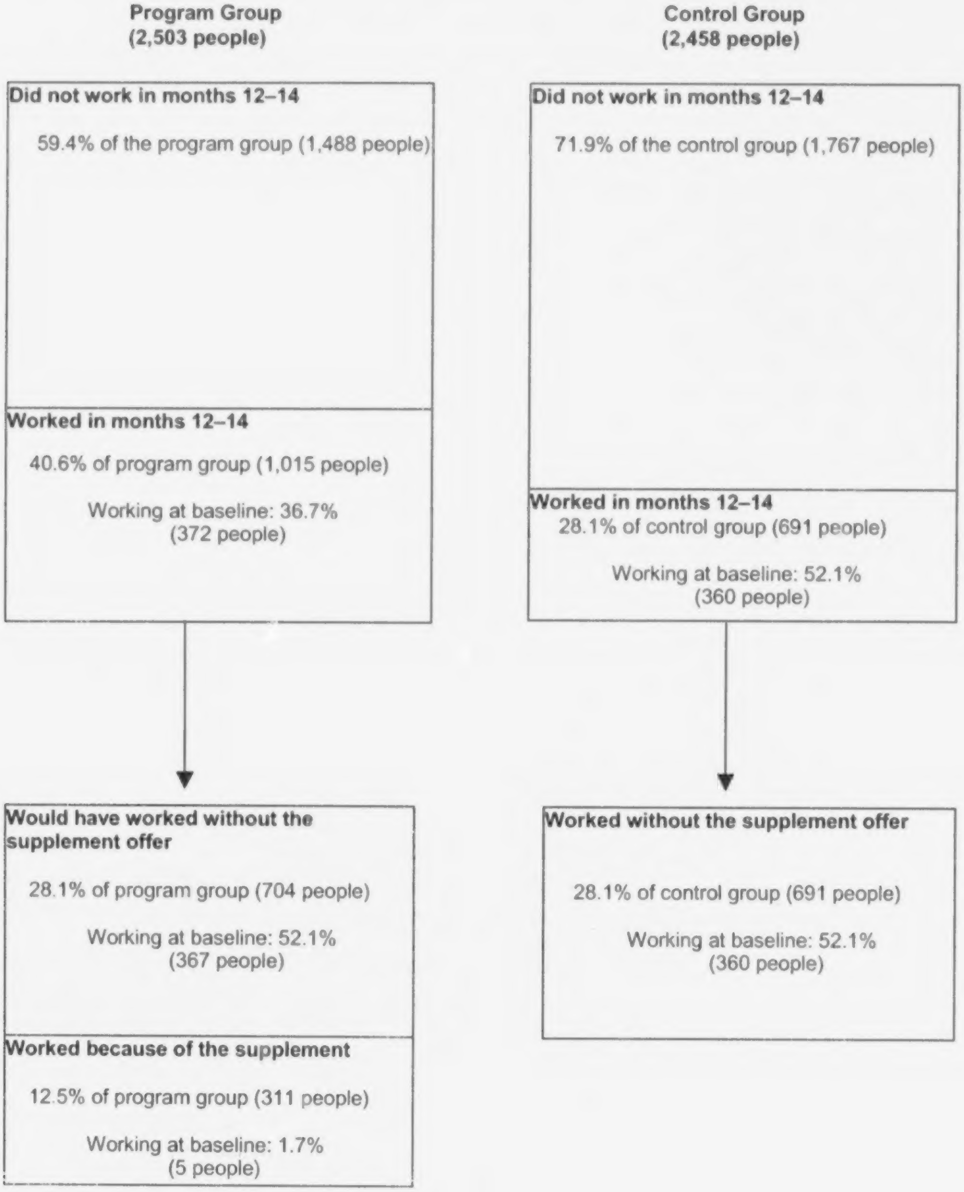
[1] To be more precise, this chapter reports results for people who worked in at least two of the three months between month 12 and month 14. Estimates of wage growth shown later in the chapter use information for the subset of this group who also worked at least two of the three months from month 32 to month 34 and who reported wages at both times.

Figure 4.1: Estimating Characteristics for Program Group Members Who Worked Because of the SSP Supplement Offer


Program Group
(2,503 people)
Control Group
(2,458 people)
Did not work in months 12–14
59.4% of the program group (1,488 people)
Did not work in months 12–14
71.9% of the control group (1,767 people)
Worked in months 12–14
40.6% of program group (1,015 people)
Working at baseline: 36.7%
(372 people)
Worked in months 12–14
28.1% of control group (691 people)
Working at baseline: 52.1%
(360 people)
Would have worked without the supplement offer
28.1% of program group (704 people)
Working at baseline: 52.1%
(367 people)
Worked without the supplement offer
28.1% of control group (691 people)
Working at baseline: 52.1%
(360 people)
Worked because of the supplement
12.5% of program group (311 people)
Working at baseline: 1.7%
(5 people)

In the bottom half of the figure, program group members who worked are further divided into two groups already described: those who would have worked without the supplement offer and those who went to work because of the offer. Neither group can be directly observed. The key assumption is that workers in the control group, who worked without the supplement offer, would also have worked if they had been offered the supplement (that is, if they had been in the program group). This is an *assumption*, not a fact, and the results presented below are only as accurate as the assumption. Nevertheless, it seems like a very reasonable starting point, since the supplement offer provided strong incentives to work and no direct incentive to not work.

The bottom half of the figure demonstrates the power of this observation. In the control group, 28.1 percent worked in months 12 to 14; this implies that 28.1 percent of the program group, or 704 people, would have worked at this time even if they had not been offered the supplement. Since 40.6 percent of the program group (1,015 people) actually worked at this time, this further implies that 12.5 percent of the program group (311 people) worked *because of* the supplement offer. That is, they were motivated by the supplement offer to work in months 12 to 14.

If the underlying assumption is correct, then the characteristics of the 28.1 percent of the control group who were working should be the same on average as the characteristics of the 28.1 percent of the program group who would have worked in the absence of the supplement offer. As a result, any differences in the average characteristics of workers in the program group and workers in the control group are due to the people who were motivated by the supplement offer to go to work.

Figure 4.1 tries to make this more concrete by providing estimates of the number of people working at baseline who nonetheless were working in months 12 to 14 *only because of the supplement*. This group is likely to be small. It consists of people who were working at baseline, who would have lost their jobs before the end of the first year if they had not been offered the supplement but who were still working at the end of the first year because they were offered the supplement. It is equal to the number of people in the program group who were working at baseline and worked at months 12 to 14, minus the number of members of the control group (and by implication the number of program group members who would have worked without the supplement) who also worked at both times. The bottom box in Figure 4.1 shows that less than two percent of people who worked in months 12 to 14 solely because of the supplement offer had also been working at baseline. Virtually the entire effect of SSP on employment, in other words, was to convince people who were not working to go to work. This result increases our confidence that the assumption needed to infer the characteristics of people who were motivated by the supplement offer is correct.

Where did this estimate come from? Its derivation requires a few steps:

- As has been mentioned, *28.1 percent* of the control group, representing 691 people, worked in months 12 to 14.
- This implies that *28.1 percent* of the program group would have worked even in the absence of the supplement offer. This percentage represents *704 people*, or 28.1 percent of the 2,503 people in the program group.

- In the program group, 1,015 people were working in months 12 to 14. If the *704* who would have worked without the supplement offer are subtracted from that number, *311 people* worked solely because of the supplement offer.
- Among control group members who worked about a year after random assignment, *52.1 percent* were also working at the time of random assignment.
- This implies that *52.1 percent* of the 704 people in the program group who would have worked without the supplement offer were already working at the time of random assignment. This percentage represents *367 people* (or 52.1 percent of 704).
- Among program group members who worked about a year after random assignment, 36.7 percent were also working at the time of random assignment. This percentage represents *372 people* (36.7 percent of 1,015).
- This leaves only *five people* (*372* less *367*) in the program group who responded to the supplement *and* worked at the time of random assignment, or less than two percent (5/324) of those who responded to the supplement offer.

CHARACTERISTICS OF PEOPLE WHO WORKED ONLY BECAUSE OF THE SUPPLEMENT OFFER

Table 4.1 uses the logic shown in Figure 4.1 to infer baseline characteristics for people who went to work because of the supplement offer. The table begins by showing the average baseline characteristics of the report sample (also seen in Table 1.1), average characteristics of workers in the program group (second column), and workers in the control group (third column).[2] Using the logic described in the previous section, the fourth column shows the inferred characteristics of people in the program group who went to work because of the supplement offer. The table ends with the estimated difference between those who were motivated to work by the supplement and working control group members, along with the standard error of this estimate.

Table 4.1 is expected to reveal several patterns. First, people who went to work were probably able to find better jobs than those who did not work could have found. Workers in both the control group and the program group were therefore expected to have more education, greater work experience, and less time on Income Assistance than the sample as a whole. Second, if SSP increased employment by digging deeper, then workers in the program group should have had worse characteristics on average than workers in the control group. They should have had less education, less work experience, and longer welfare histories, for example. If this is true, then the inferred characteristics of the group who went to work only because of the supplement offer would have been worse than workers in the control group.

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[2] Although these two groups are referred to as workers, they do not include all people who worked after random assignment. In particular, they include only people who worked in two out of three months from month 12 to month 14 of the follow-up period. Some people worked after random assignment but were not working from month 12 through month 14.

Table 4.1: Non-Experimental Comparisons of Baseline Characteristics of Program and Control Group Members Who Worked in Months 12–14

Baseline Characteristics	Report Sample	Program Group Workers	Control Group Workers	Program Group, Supplement Motivated Workers	Difference, Supplement Motivated and Control Group Workers	Standard Error
Personal characteristics (%)						
Female	95.6	96.1	96.7	94.7	-2.0	(3.0)
Under age 26	26.5	25.4	22.6	31.8	9.2	(6.8)
Age 26-34	38.6	40.6	39.1	43.9	4.8	(7.9)
Over age 34	34.9	34.0	38.3	24.3	-13.9	(7.7)
Does not have high school diploma	53.5	43.2	39.5	51.4	11.9	(7.9)
Never married	48.7	48.2	47.8	49.1	1.4	(8.0)
Youngest child under age 5	47.8	44.7	40.9	53.1	12.2	(8.0)
Work history						
Years of work experience	7.4	8.7	9.6	6.7	-2.9	(1.1)
Employed at random assignment (%)	19.6	36.7	52.1	1.7	-50.4	(7.9)
Not employed in the 12 months prior to random assignment (%)	69.9	50.0	37.6	78.1	40.5	(7.9)
Average monthly earnings in the 12 months prior to random assignment ($)	97	177	246	20	-226	(57)
Recent welfare history						
Months on Income Assistance in the 3 years prior to random assignment	29.9	29.5	29.1	30.5	1.4	(1.3)
Parents received IA benefits (%)	25.2	21.9	21.9	22.1	0.2	(6.8)
Sample size	**4,961**	**1,015**	**691**			

Sources: Calculations based on baseline survey data and IA administrative records.

Note: Sample sizes vary for individual measures because of missing values.

Rounding may cause slight discrepancies in sums and differences.

The first portion of Table 4.1 indicates that SSP did not dig much deeper when measured by the personal characteristics of the sample. According to the first row, for example, 95.6 percent of all sample members were women. The proportion of workers who were women is similar: 96.1 percent in the program group and 96.7 percent in the control group. Since workers in the program group were slightly less likely to be women than workers in the control group, this implies that workers who went to work because of the supplement offer were even less likely to be women. The fourth column of results verifies this reasoning, showing that supplement-motivated workers were inferred to include 94.7 percent women.

For most other personal characteristics, workers were similar to the entire sample. They were about equally likely to be under age 26, over age 34, or somewhere in between at random assignment, and they were about equally likely to have been never married at that time. Two differences between the entire sample and working members of the control group were larger. While 53.5 percent of the sample had less than a high school diploma, only about 40 percent of working control group members did. This is not surprising, since people with more education are likely to be able to earn more and therefore be better able to leave welfare for work. Likewise, about 48 percent of the sample had a youngest child under age five at baseline, compared with about 41 percent of workers in the control group.

As an indication that SSP dug deeper, workers in the program group had personal characteristics that imply they were somewhat more disadvantaged than workers in the control group. While about 40 percent of workers in the control group did not have a high school diploma, 43 percent of workers in the program group did not. About 41 percent of workers in the control group had a child under age five at baseline, compared with 45 percent of workers in the program group. When these figures are used to estimate the percentages of supplement-motivated workers with these characteristics, people in the program group who went to work because of the supplement offer are seen to be even more disadvantaged than workers in the control group. Compared with the 40 percent of workers in the control group who did not have a high school diploma, more than half the supplement-motivated workers were inferred to lack a high school diploma, a difference of more than 11 percentage points. Likewise, while 41 percent of workers in the control group had a child under age five, 53 percent of the supplement-motivated workers did, a difference of 12 percentage points.

Although this comparison of personal characteristics indicates that SSP did dig deeper, the starkest differences between workers in the two research groups are in their work history. Workers in the control group had more prior work experience than workers in the program group (9.6 years compared with 8.7 years); they were more likely to be working at baseline (52.1 percent compared with 36.7 percent); they were less likely to have been out of work for the entire year prior to baseline (37.6 percent compared with 50.0 percent); and they earned more in the month prior to baseline ($246 compared with 177).

These results imply that people who worked because of the supplement had much less work experience than people who would have worked without the supplement. Some of these differences are quite striking. People who were motivated by the supplement had only 70 percent as much lifetime work experience as other workers. More than three-quarters of them had not worked in the year prior to random assignment, and they earned only about $20 on average in the month prior to random assignment — or $221 less than working members of the control group. The most striking result, however, is the one shown in

Figure 4.1. It is worth repeating. Almost nobody who responded to the supplement was working at baseline. Thus, SSP had its effects largely by convincing people who were not working to enter the workforce. These results provide another perspective on how remarkable SSP was. Not only did it increase employment, but it did so by helping or persuading an extremely disadvantaged group of people with little recent work experience to work full time.

ESTIMATES OF WAGE GROWTH

Determining the baseline characteristics of people who worked because of the supplement relied on two theoretical propositions. First, every person in the control group had a counterpart in the program group. Second, the incentive contained in SSP's supplement offer should have encouraged some people to work, but it should not have encouraged others to stop working. The first assumption is unassailable if random assignment was properly conducted, and baseline characteristics of the program and control groups imply that it was. The second assumption is plausible; therefore, the estimated baseline characteristics of supplement-motivated workers seem entirely plausible.

This section takes the analysis one step further by attempting to infer the outcomes *after* random assignment for people who worked because of the supplement. In particular, this section provides a non-experimental estimate of the wages earned by this group, as well as the wage growth experienced by them. Estimating these outcomes requires a strong assumption: that working control group members have the same *outcomes* as people in the program group who would have worked without the supplement offer. For outcomes measured after random assignment, this is a fairly strong assumption because it implies that program group members who would have worked without the supplement offer did not change their decisions when they accepted the supplement offer; that is, they took the same jobs, they worked the same number of hours, they kept those jobs equally long, and — most important for an analysis of wage growth — they earned as much per hour of work.

In some respects, this assumption is clearly wrong. Results in Chapter 2 indicate, for example, that some people shifted from part-time to full-time work in response to the supplement offer. Their hours worked are therefore higher because of the supplement, even though they would have worked without the supplement offer. Since full-time work is expected to increase wages more than part-time work, wage growth might therefore be higher for program group members who worked than for control group members who worked, a violation of the assumption.

To provide a range of estimates of wage growth for program group members who went to work because of the supplement, two analyses were performed. The first analysis is the one described earlier in this chapter, in which a member of the program group was considered supplement-motivated if she worked but would not have worked without the supplement offer. In the second analysis, a member of the program group was considered supplement-motivated if she worked full time but would not have worked full time without the supplement offer. In both analyses, wage growth for those who worked because of the supplement was not statistically different from wage growth for workers in the control group.

Outcomes for People Working at Random Assignment

Table 4.2 investigates the plausibility of the underlying assumption by showing employment-related outcomes for sample members who were working at the time of the baseline survey. As has been argued, few people who went to work because of the supplement offer were working at random assignment. The corollary of this finding is that people who were working at random assignment were just as likely to be working in the program group as in the control group. Comparing outcomes for these people, therefore, should give one indication of whether wages grew by about the same amount for people in the program group who would have worked without the supplement offer as for people in the control group who worked.

Table 4.2: Non-Experimental Comparisons of Labour Market Outcomes of Program and Control Group Members Who Were Working at Random Assignment

Outcome	Program Group Workers	Control Group Workers	Difference (Impact)	Standard Error
Employment and hours				
Working in months 12-14 (%)	78.0	73.0	5.0	(2.8)
Working in months 32-34 (%)	66.3	66.7	-0.5	(3.0)
Cumulative months worked, months 12-34	16.2	15.9	0.3	(0.5)
Average weekly hours, months 12-34	22.8	20.5	2.2	(1.1)
Average months on SSP, months 12-34	9.3	0.0	9.3	(0.4)
Wage ($)				
Average hourly wage, months 12-14	7.77	8.73	-0.95	(0.45)
Average hourly wage, months 12-14 for those working in months 32-34	8.08	8.89	-0.82	(0.53)
Average hourly wage, months 32-34	8.63	9.47	-0.84	(0.47)
Wage growth (%)				
Average change in hourly wages, months 12-14 to months 32-34, trimmed	9.7	11.2	-1.5	(2.3)
Change in mean hourly wages, months 12-14 to months 32-34	6.8	6.5	0.3	n.a.
Sample size (total = 970)	**477**	**493**		

Sources: Calculations from IA administrative records and payment records from SSP's Program Management Information System.

Note: Rounding may cause slight discrepancies in sums and differences.

Employment

According to the first several rows of Table 4.2, employment among people in the program group who were working at random assignment was similar to employment for the corresponding portion of the control group. In months 12 to 14, there was a small difference in the employment rate of the two groups, but roughly 75 percent of both groups were working at this time. By months 32 to 34, the difference between the two groups had disappeared, and about 67 percent of both groups were working. Both groups also worked about 16 months on average between month 12 and month 34. Although employment rates were similar for the two groups, work effort appeared to be higher for the program group. In particular, people in the program group did work a few more hours than those in the control group, perhaps because they had to work full time to receive the SSP supplement.

Wages and Wage Growth

Despite the similar employment outcomes for the two groups, workers in the program group earned about 10 percent lower wages than workers in the control group in months 12 to 14 ($7.77 per hour compared with $8.73 per hour). This difference could be another indication that SSP dug deeper, since more members of the program subgroup were working than members of the control subgroup. On the other hand, it might imply that the supplement offer encouraged some people to take lower-paying jobs than they otherwise would have.

Wage growth can be meaningfully measured only for people who have worked near the beginning and near the end of the follow-up period. As in Chapter 3, wage growth in this chapter is measured only for people who worked in two of the three months from month 12 to 14 and two of the three months from month 32 to month 34. The next row of Table 4.2 shows wages for this more limited group. In both the program group and control group, wages were slightly higher in this group than for all people who worked in months 12 to 14. As a result, wages in the control group remained nearly a dollar higher than wages in the program group ($8.89 compared with $8.08).

Between months 12 and 14, on the one hand, and months 32 and 34, on the other, average wages grew by a similar amount for the two groups. For people in the program group who were working at random assignment, average wages grew from $8.08 per hour to $8.63, or 6.8 percent. For the control group, average wages also grew, from $8.89 to $9.47 per hour, or 6.5 percent.

As discussed in Chapter 3, a better measure of wage growth is the average growth in wages. Between months 12 and 14, on the one hand, and months 32 and 34, on the other, average wage growth was somewhat higher for workers in the program group. For people in the program group who were working at random assignment, wages grew 19.4 percent compared with 11.6 percent for the control group (not shown in Table 4.2).

An examination of wages indicated that wages grew by a very large amount for some people and dropped by a very large amount for others. As discussed in Chapter 3, this is a notorious problem when studying hourly wages, since wage information for many people must be calculated on the basis of reported earnings and hours worked. If a person indicated how much she earned per month, for example, as well as the number of hours worked per month, her hourly wage was calculated as her reported earnings divided by her reported hours. If she overstated her earnings or understated her hours worked, her calculated hourly wage would be quite high. Likewise, if she understated her earnings or overstated her hours worked, her calculated hourly wage would be quite low. If she made the same mistake at both points in time, her wage growth might still appear reasonable. If she made the mistake at one point in time but reported accurately for the other period, however, her calculated wage growth would either be extremely large or extremely small.

A simple way to evaluate the influence of these very high and very low values for wage growth is to trim the large changes. In this study, if a person's reported wages fell by more than 35 percent, wage growth for that person was set at -35 percent. If a person's reported wages grew by more than 150 percent, wage growth for that person was set at 150 percent. These points correspond roughly to the 5th and 95th percentiles of the distribution of changes in the control group.

The second-to-last row of Table 4.2 presents the estimated average wage growth after trimming. After trimming, wages grew slightly less for the program group than for the control group (9.7 percent for workers in the program group and 11.2 percent for workers in the control group). Since it is extremely unlikely that wages would actually grow by more than 50 percent or decline by more than 35 percent, estimates using the trimmed numbers may provide a more realistic comparison of the two groups.

In other words, wage growth was similar for members of the two research groups within the primary subgroup of people who would have worked without the supplement offer. Even though some members of the program group shifted from part-time to full-time work because of the supplement offer, wages grew just as fast for working control group members as for working program group members. This result verifies the plausibility of the key assumption of this chapter and lends some credibility to the non-experimental results that follow.

Wage Growth for People Who Worked After Random Assignment

Following through on the strong assumption described earlier, Table 4.3 shows wages and wage growth for people in the program and control groups who were working in months 12 to 14. The first two columns show means for workers in the program group and control group, respectively. The third column shows outcomes inferred for people who went to work only because of the supplement offer. The fourth column shows the difference in means between workers in the program group and workers in the control group, with an estimated standard error in the fifth column. Finally, the sixth column shows the difference between outcomes for supplement-motivated workers and workers in the control group, with standard errors for this comparison shown in the final column.

Employment

The first row of Table 4.3 shows that just over two-thirds of people who were working in months 12 to 14 were also working in months 32 to 34.[3] This was true for both research groups and was therefore true for people who worked because of the supplement offer as well as those who would have worked without it. In both research groups, people worked almost 18 months on average between month 12 and month 34 (the second row of the table). In other words, for both groups, people who were employed in months 12 to 14 worked in about 80 percent of the following months. Since results are similar for the two research groups, they are also similar for people who were motivated by the supplement offer.

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[3] Again, a person was considered to be employed in months 32 to 34 if she reported working in at least two of the three months. Results based on other definitions are similar.

Table 4.3: Non-Experimental Comparisons of Labour Market Outcomes of Program and Control Group Members Who Worked in Months 12–14

Outcome	Program Group Workers	Control Group Workers	Program Group, Supplement Motivated Workers	Difference, Program and Control Group Workers	Standard Error	Difference, Supplement Motivated and Control Group Workers	Standard Error
Working in months 32-34 (%)	68.4	67.9	69.5	0.5	(2.3)	1.6	(7.5)
Cumulative months worked (months 12-34)	17.8	17.8	17.7	0.0	(0.3)	0.0	(1.1)
Mean hourly wage (months 12-14)	7.38	8.41	5.04	-1.04	(0.3)	-3.38	(0.9)
Average hourly wage months 12-14 for those working in months 32-34 ($)	7.66	8.67	5.37	-1.01	(0.3)	-3.31	(1.09)
Average hourly wage months 32-34 ($)	8.29	9.59	5.35	-1.30	(0.4)	-4.24	(1.19)
Change in average hourly wages, months 12-14 to months 32-34 (%)	8.2	10.6	-0.4	-2.4	n.a	-11.0	n.a.
Average change in hourly wages, months 12-14 to months 32-34 (%)	13.3	24.6	-12.3	-11.3	(5.3)	-36.8	(17.1)
Average change in hourly wages, months 12-14 to months 32-34, trimmed (%)	12.4	12.7	11.7	-0.3	(1.8)	-1.0	(5.8)
Sample size (total = 1,706)	**1,015**	**691**					

Sources: Calculations from 18-month and 36-month follow-up survey data.

Notes: Rounding may cause slight discrepancies in sums and differences.

Wages

As has been discussed, wage growth can be measured only for people who worked both early and late in the follow-up period. The third row of Table 4.3 shows the average hourly wage in months 12 to 14 for people who also worked two out of the three months from month 32 to month 34. At this early stage of SSP, workers in the program group had wages about $1.00 lower than did those in the control group — $7.66 per hour compared with $8.67, or about 11 percent lower in the program group.

It is important to note that this is not an experimental comparison, since more program group members than control group members worked during the follow-up period. The difference in hourly wage rates does not imply that program group members took lower-paying jobs with the supplement than they would have if they had not been offered the supplement. Indeed, the basic assumption of this chapter is that they did not (and comparisons of the distribution of wages of the two groups shown in Chapter 2 show no evidence that they did). Under this assumption, the mean wage of people who worked because of the supplement was $5.37, or about 60 percent of the average among workers in the control group. This finding is consistent with the results of Lin et al. (1998), which indicate that the extra jobs people took because of SSP paid close to the minimum wage.

The fifth row of Table 4.3 shows mean wages in months 32 to 34 for members of the two research groups who worked both early and late in the follow-up period. Over time, wages for both groups increased. For the control group, average wages increased by about a dollar, from $8.67 to $9.59; for the program group, wages increased substantially less, by only about 60 cents from $7.66 to $8.29. This implies that wages increased very little for people who were motivated to work by the supplement offer, and the third column of the table indicates that the average wage for this group did not change at all over the follow-up period, ending up at $5.35 per hour compared with $5.37 at the beginning.

Growth in Average Wage Rates

The next three rows present three estimates of wage growth. The third row from the bottom presents the change in average wage over time. For the control group, the one-dollar increase in wages represents an increase of about 10 percent over the early wage of $8.67. For the program group, the average wage increased about eight percent, from $7.66 to $8.29. For people who worked because of the supplement offer, the average wage fell slightly, by only 0.4 percent.

Average Growth in Wage Rates

The long-term potential of SSP does not depend on the growth in the average hourly wage rate for an entire group. Instead, it is more likely to depend on how much wages grow for people within that group. The second row from the bottom of Table 4.3 presents an estimate of average wage growth that reflects wage growth for people in the sample. For each worker, wage growth over the two-year period was calculated. This estimate of wage growth was then averaged across people in the sample. In comparison, the prior row first averaged wages across the sample and then showed the growth in this average wage. (See Chapter 3 for a more complete discussion of the distinction between average wage growth and growth in average wages.)

This second measure of wage growth presents an even more pessimistic view of wage growth for people who worked because of the supplement offer. While average wage growth was close to 25 percent for workers in the control group, it was only about half that (13.3 percent) for workers in the program group. If people who would have worked in the absence of the supplement received the same wages as workers in the control group, then the average person who worked only because of the supplement must have seen her wages decrease over time. In fact, Table 4.3 indicates that wages were estimated to have declined by 12.3 percent for the average person who was motivated by the supplement offer to work.

As has been discussed, close examination of information on wage growth revealed a small number of very large and very small values. The last row of Table 4.3 presents the estimated average wage growth after trimming. When wages are trimmed, wage growth is similar for the three groups: 12.4 percent for workers in the program group, 12.7 percent for workers in the control group, and 11.7 percent for people who worked because of the supplement offer.

DISCUSSION

The three estimates of wage growth in Table 4.3 yield very different conclusions. The first indicates that wages barely changed for people who went to work because of the supplement offer. The second is even worse. Not only did wages not grow for these people, they decreased considerably. The third is the most promising. Not only did wages grow for people who were motivated by the supplement offer, they grew as much as for other workers, and they grew at a robust rate of nearly 12 percent over a period of about two years. Which result should be believed?

Fortunately in this case, the non-experimental estimates can be compared with the experimental estimates of wage growth shown in Table 3.2 of Chapter 3. The experimental results indicate that more people in the program group than in the control group experienced wage growth of 10 percent or higher. These results also indicate that about the same proportion of people in the control group and the program group experienced wage declines. Thus, the experimental results seem most consistent with the results using trimmed wages.

Wage Growth Among Full-Time Workers

The results shown in Table 4.3 indicate that wage growth was about 13 percent between the end of the first year and the end of the third year after random assignment for control group members who worked at the end of the first year. The key assumption underlying this analysis was that outcomes — wages in particular — for people who would have worked without the supplement were the same as outcomes for control group members who worked. Results from Chapter 2 indicate that this assumption is wrong in some respects, since some program group members who would have worked part time without the supplement increased their work effort to full time to receive the supplement. Since full-time work will likely lead to greater work experience and greater wage growth than part-time work, it is possible that wages for people who would have worked without the supplement grew at a different rate than wages for working control group members. If so, the estimated wage growth shown in Table 4.3 for people who worked because of the supplement offer probably overstates wage growth for this group.

Table 4.4 addresses this issue by making the same comparisons as Table 4.3, but making a different assumption about who was motivated to go to work by the supplement offer. As in Table 4.3, the first two columns of results show outcomes for workers in the program group and control group. In this case, however, outcomes are limited to people who worked *full time* in two of the three months from month 12 to month 14 but would not have worked full time without the supplement. Using this more restrictive definition of work reduces the sample considerably. While Table 4.3 reported results for 691 control group members and 1,015 program group members, Table 4.4 reports results for only 361 control group members and 742 program group members. Using this definition of work, people who worked because of the supplement did so by working full time. Some would not have worked without the supplement offer but worked full time with the offer. Others would have worked part time without the supplement offer but moved to full-time work because of the supplement.

In most respects, the implications of Table 4.4 are similar to the implications of Table 4.3. Table 4.4 indicates that among sample members who were working full time at the end of the first year, about 70 percent of both research groups continued to work at the end of the third year. Among people who were working full time at the end of the first year and also working at the end of the third year, wages were about a dollar lower in the program group than in the control group. One outcome is somewhat different in Table 4.4. Over the two-year period, the average (trimmed) growth in hourly wages was somewhat less for the program group than for the control group (14.2 percent compared with 18.7 percent). This finding suggests that wage growth for people who were motivated by the supplement to work full time was even smaller. In fact, the last entry in the third column of the table indicates that wages were estimated to have grown by 10 percent for this group, a result that is similar to the result shown in Table 4.3.

Table 4.4: Non-Experimental Comparisons of Labour Market Outcomes of Program and Control Group Members Who Worked Full Time in Months 12–14

Outcome	Program Group Workers	Control Group Workers	Program Group, Supplement Motivated Workers	Difference, Program and Control Group Workers	Standard Error	Difference, Supplement Motivated and Control Group Workers	Standard Error
Working in months 32-34 (%)	70.5	69.3	71.7	1.2	(3.0)	2.4	(5.9)
Cumulative months worked, months 12-34	18.2	17.8	18.6	0.4	(0.4)	0.8	(0.8)
Average hourly wage ($)	7.20	8.17	6.24	-0.98	(0.3)	-1.93	(0.5)
Average hourly wage, months 12-14 for those working in months 32-34 ($)	7.41	8.56	6.29	-1.15	(0.34)	-2.27	(0.68)
Average hourly wage, months 32-34 ($)	8.18	9.93	6.46	-1.75	(0.42)	-3.47	(0.84)
Change in average hourly wages, months 12-14 to months 32-34 (%)	10.4	16.0	2.6	-5.6	n.a.	-13.4	n.a.
Average change in hourly wages, months 12-14 to months 32-34 (%)	13.5	31.4	-4.1	-17.9	(7.5)	-35.5	(14.9)
Average change in hourly wages, months 12-14 to months 32-34, trimmed (%)	14.2	18.7	9.8	-4.5	(2.9)	-9.0	(5.8)
Sample size (total = 1,103)	**742**	**361**					

Sources: Calculations from 18-month and 36-month follow-up survey data.

Notes: Rounding may cause slight discrepancies in sums and differences.

SUMMARY

This chapter has addressed an issue that is often asked in an experimental setting: how do the characteristics and outcomes of people who are affected by the experimental policy compare with those of others? This is not an easy question to answer. Although random assignment ensures that the program group on average is similar to the control group on average, it is impossible to know exactly which members of the program group responded to a new policy and which members of the control group would have responded to the new policy.

When the technique described in this chapter was applied to the SSP recipient study, it indicated that SSP dug deeper by encouraging people with relatively little recent work experience to work full time and take up the supplement offer. Virtually none of this group was working at the time of random assignment, and nearly three-fourths had not worked at all in the year prior to random assignment. This group also had worked somewhat less in their entire lifetime than the sample as a whole.

The technique was then applied to ask how much wages grew for people who went to work because of the supplement offer. The answer appears to be that wage growth for supplement-motivated workers was similar to wage growth for other workers. People who worked because of the supplement had wages that grew about 12 percent over a two-year period of time, a rate that was similar to the average wage growth for people who worked even without the supplement offer. The answer to the question, however, is somewhat sensitive to how the group that was motivated by the supplement is defined and how very large and very small values of wage growth are treated.

Appendix A:
Analysis of Non-Response Bias in the 36-Month Follow-Up Interview

The baseline research sample of the SSP recipient study consisted of the 5,685[1] single parents who completed the baseline survey and were randomly assigned to either the program group or the control group. Of the baseline research sample, 4,961 completed the 36-month follow-up survey, 643 did not respond, and 81 either withdrew from the survey or withdrew from the SSP project after the baseline survey. The overall 36-month survey response rate was therefore 87.3 percent,[2] which is about five percent lower than the 18-month survey response rate.

The omission of the 724 non-respondents from the 36-month report sample could lead to biases in the estimated impacts if the non-response is not random. This appendix provides an assessment of the likelihood that impacts presented in the report are severely biased. In this assessment, data from the baseline survey and administrative records that are available for the entire baseline research sample were used to compare survey respondents and non-respondents.

RESPONSE RATES

Table A.1 shows the response rates of the 36-month report sample by research group, province, and cohort. Overall, more than 85 percent of the baseline sample provided some responses to the 36-month interview. Response rates differed somewhat by province, however; while more than 90 percent of sample members in New Brunswick responded to the survey, about 85 percent of those in British Columbia did. Nevertheless, the response rate is fairly high by industry standards for a three-year follow-up survey.

For experimental comparisons to be valid, it is important that the program and control groups be equally likely to respond to a survey. Except for the second cohort in New Brunswick, the response rates of program group members in all subgroups were slightly higher than those of control group members. In all cases, however, the differences between program and control group members were small and statistically insignificant.

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[1] According to Lin et al., 1998, there were 5,686 baseline respondents. However, one sample member who responded to the 18-month survey subsequently withdrew from the study.

[2] As in the 18-month report, withdrawals were treated as non-respondents in this analysis.

Table A.1: 36-Month Survey Response Rates

Province and Cohort	Program Group	Control Group	Difference
Both provinces	87.6	86.9	0.6
First cohort[a]	84.4	82.8	1.6
Second cohort	89.4	89.4	0.1
British Columbia	84.8	83.0	1.8
First cohort	82.1	79.8	2.3
Second cohort	87.2	85.9	1.3
New Brunswick	90.8	91.4	-0.6
First cohort	89.1	89.1	0.0
Second cohort	91.3	92.1	-0.8
Sample size (total = 5,683)	**2,858**	**2,827**	

Source: Calculations from 36-month follow-up survey data.

Notes: Two-tailed t-tests were applied to differences between the response rates of the program and control groups.

[a]The first cohort consists of sample members randomly assigned between November 1992 and October 1993. The second cohort consists of sample members randomly assigned between January 1994 and March 1995.

EFFECTS OF NON-RESPONSE ON MEASURES OF BASELINE CHARACTERISTICS

Table A.2 presents selected characteristics of program and control group members at random assignment, showing separate data for the baseline research sample and the 36-month report sample. In both the baseline research sample and the 36-month report sample, there were sporadic differences between the program and control groups. For example, the program group in the baseline research sample had more education, had spent more time on Income Assistance (IA), and were less likely to have very young children. These differences were infrequent enough and small enough, however, that they are very likely due to chance.

Many of the differences between the program group and control group in the baseline research sample also were significantly different between the program group and control group in the 36-month report sample. In fact, the program-control differences for the baseline research sample are significantly different from the program-control differences for the 36-month research sample only in one case. Thus, 36-month respondents in the program group appear to be similar to respondents in the control group, and there is little reason to think that the impacts presented in the report are biased because of different response rates for the two research groups.

Table A.2: Comparison of Characteristics of Baseline and 36-Month Report Samples

Characteristic	36-Month Report Sample Program Group (1)	 Control Group (2)	 Difference (Impact) (3)	Baseline Research Sample Program Group (4)	 Control Group (5)	 Difference (Impact) (6)	(3)-(6)
Gender (%)							
Female	95.4	95.9	-0.4	94.8	95.3	-0.5	0.1
Age (%)							
19-24	21.6	22.5	-0.9	21.0	21.7	-0.7	-0.2
25-29	21.1	20.8	0.3	21.4	20.9	0.5	-0.2
30-39	39.5	38.7	0.8	39.7	38.9	0.8	0.1
40-49	15.3	15.5	-0.2	15.4	15.9	-0.5	0.3
50 or older	2.5	2.5	0.0	2.7	2.7	0.0	0.0
Completed education (%)							
Less than high school education	52.8	54.3	-1.5	54.3	55.1	-0.9	-0.7
Completed high school, no post-secondary education	10.8	11.7	-0.9	10.4	12.0	-1.6 *	0.7 **
Some post-secondary education	36.4	34.0	2.4 *	35.4	32.9	2.5 **	0.0
Recent welfare history							
Number of months on IA in prior 3 years (%)							
0-23	22.9	25.1	-2.3 *	22.8	24.9	-2.1 *	-0.2
24-35	33.3	33.6	-0.3	33.8	34.0	-0.2	-0.1
All 36	43.9	41.3	2.6 *	43.5	41.1	2.3 *	0.2
Average IA payment in prior month ($)	858	851	7	868	860	8	0
Work history and labour force status							
Ever had a paid job (%)	95.2	94.1	1.1 *	95.0	94.3	0.7	0.4
Labour force status at random assignment (%)							
Employed 30 hours/week or more	6.4	7.3	-0.9	6.0	7.1	-1.2 *	0.2
Employed less than 30 hours/week	12.8	12.9	-0.1	12.4	12.2	0.2	-0.2
Looking for work, not employed	21.8	23.0	-1.2	22.7	23.6	-0.9	-0.3
Neither employed nor looking for work	59.0	56.9	2.2	59.0	57.1	1.9	0.3

(continued)

Table A.2: Comparison of Characteristics of Baseline and 36-Month Report Samples (Cont'd)

	36-Month Report Sample			Baseline Research Sample			
Characteristic	Program Group (1)	Control Group (2)	Difference (Impact) (3)	Program Group (4)	Control Group (5)	Difference (Impact) (6)	(3)-(6)
Children							
Number of children under age 19 (%)							
1	53.2	54.8	-1.6	53.5	54.8	-1.3	-0.3
2	33.1	31.3	1.8	32.9	31.2	1.7	0.1
3 or more	13.7	13.9	-0.2	13.6	14.0	-0.4	0.2
Age of youngest child in years (%)							
0-2	29.4	31.7	-2.4 *	29.2	31.4	-2.2 *	-0.2
3-5	19.6	18.7	0.9	20.2	19.2	1.1	-0.2
6-11	24.6	23.7	0.9	24.0	23.4	0.6	0.3
12 or older	26.5	25.9	0.6	26.6	26.1	0.5	0.1
Sample size	**2,503**	**2,458**		**2,858**	**2,827**		

Sources: Calculations based on baseline survey data and IA administrative records.

Notes: Sample sizes vary for individual measures because of missing values.

Two-tailed t-tests were applied to differences between the program and control groups, and to the differences between the 36-month report sample and the baseline research sample.

Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; ***= 1 percent.

EFFECTS OF NON-RESPONSE ON IMPACT ESTIMATES FROM ADMINISTRATIVE RECORDS

Table A.3 compares the impacts from the full sample and the 36-month report sample for four outcomes: receipt of Income Assistance, receipt of either IA or SSP supplement payments, IA payments, and total payments from IA and SSP supplements. If there is a bias because of those who did not respond to the 36-month survey, then impacts for the baseline research sample will be significantly different from impacts for the 36-month report sample.

According to Table A.3, impacts based on the 36-month report sample tend to overstate the actual reduction in IA receipt due to SSP. The differences in impacts between the 36-month report and the full sample, however, are small. For example, in quarter 12, the 36-month report sample indicates that SSP reduced IA receipt by 8.4 percentage points, but the baseline research sample indicates that SSP reduced IA receipt by 7.1 percentage points, a difference of 1.3 percentage points. Although these differences are statistically significant, the policy implications of the two sets of results are the same.

Impacts for the 36-month report sample also tend to overstate the program's effects on average monthly IA payments, and the biases are not negligible in several quarters. The largest difference appears in quarter 6. According to the 36-month report sample, SSP reduced IA payments by about $115 per month during that quarter. According to the baseline research sample, the program reduced IA payments by only about $100 per month. Over the 12-quarter period, the 36-month report sample overstates the program's impact on IA payments by about $321 per program group member.

While the 36-month report sample overstates the program's impacts on Income Assistance alone, it provides accurate impacts on receipt of Income Assistance or the SSP supplement, as well as payments from Income Assistance and supplement. Thus, the implications of the 36-month report sample on overall government spending appear to be fairly accurate.

Table A.3: SSP Impacts on IA and Supplement Receipt and Payments

Outcome (Monthly Average)	36-Month Report Sample Program Group (1)	Control Group (2)	Difference (Impact) (3)	Baseline Research Sample Program Group (4)	Control Group (5)	Difference (Impact) (6)	(3)-(6)
Receiving IA (%)							
Quarter 1	97.3	97.9	-0.6 *	97.4	97.8	-0.4	-0.2
Quarter 2	88.4	93.5	-5.2 ***	88.7	93.3	-4.6 ***	-0.5 *
Quarter 3	80.8	89.3	-8.5 ***	81.0	88.7	-7.8 ***	-0.8 **
Quarter 4	75.1	85.9	-10.8 ***	75.3	85.0	-9.6 ***	-1.2 ***
Quarter 5	69.9	82.8	-12.9 ***	70.1	82.1	-12.0 ***	-0.9 **
Quarter 6	65.7	80.0	-14.3 ***	66.4	79.1	-12.7 ***	-1.6 ***
Quarter 7	64.6	77.4	-12.8 ***	65.1	76.3	-11.2 ***	-1.6 ***
Quarter 8	63.5	75.3	-11.8 ***	63.7	73.9	-10.1 ***	-1.7 ***
Quarter 9	62.6	73.3	-10.7 ***	62.5	71.8	-9.3 ***	-1.4 ***
Quarter 10	61.5	71.3	-9.8 ***	61.4	69.6	-8.2 ***	-1.5 ***
Quarter 11	60.9	69.5	-8.6 ***	60.5	67.7	-7.1 ***	-1.5 ***
Quarter 12	60.4	68.8	-8.4 ***	59.5	66.6	-7.1 ***	-1.4 ***
Receiving either IA or SSP (%)							
Quarter 1	97.9	97.9	0.0	97.9	97.7	0.1	-0.2
Quarter 2	94.9	93.5	1.3 **	94.8	93.3	1.5 ***	-0.2
Quarter 3	92.6	89.3	3.3 ***	92.2	88.7	3.5 ***	-0.2
Quarter 4	90.7	85.9	4.8 ***	90.0	85.0	5.0 ***	-0.2
Quarter 5	89.5	82.8	6.7 ***	88.5	82.1	6.4 ***	0.3
Quarter 6	87.5	80.0	7.5 ***	86.6	79.1	7.5 ***	0.0
Quarter 7	85.2	77.4	7.8 ***	84.3	76.3	8.0 ***	-0.2
Quarter 8	83.7	75.3	8.4 ***	82.5	73.9	8.6 ***	-0.2
Quarter 9	82.1	73.3	8.8 ***	80.5	71.8	8.7 ***	0.1
Quarter 10	80.8	71.3	9.5 ***	79.3	69.6	9.7 ***	-0.2
Quarter 11	80.1	69.5	10.5 ***	78.3	67.7	10.7 ***	-0.2
Quarter 12	79.2	68.8	10.3 ***	77.1	66.6	10.5 ***	-0.1

(continued)

Table A.3: SSP Impacts on IA and Supplement Receipt and Payments (Cont'd)

	36-Month Report Sample			Baseline Research Sample			
Outcome (Monthly Average)	Program Group (1)	Control Group (2)	Difference (Impact) (3)	Program Group (4)	Control Group (5)	Difference (Impact) (6)	(3)-(6)
Average IA payments ($/month)							
Quarter 1	848	837	11	859	847	12	-1
Quarter 2	782	805	-23 **	793	812	-20 **	-3
Quarter 3	719	775	-56 ***	727	777	-50 ***	-6
Quarter 4	676	751	-75 ***	682	749	-67 ***	-8 *
Quarter 5	627	724	-97 ***	633	724	-90 ***	-7
Quarter 6	588	703	-115 ***	599	700	-100 ***	-14 ***
Quarter 7	573	678	-104 ***	581	673	-92 ***	-12 ***
Quarter 8	556	652	-97 ***	561	644	-83 ***	-14 ***
Quarter 9	535	623	-89 ***	538	618	-80 ***	-8 *
Quarter 10	520	599	-79 ***	522	590	-68 ***	-11 **
Quarter 11	511	580	-68 ***	510	567	-56 ***	-12 ***
Quarter 12	503	569	-66 ***	498	554	-55 ***	-11 **
Average SSP and IA payments ($/month)							
Quarter 1	862	837	25 ***	872	846	25 ***	-1
Quarter 2	865	805	61 ***	871	812	59 ***	1
Quarter 3	843	775	68 ***	844	776	67 ***	1
Quarter 4	833	751	82 ***	830	749	81 ***	0
Quarter 5	829	724	105 ***	824	723	100 ***	4
Quarter 6	793	703	91 ***	791	699	92 ***	-1
Quarter 7	760	678	83 ***	755	673	82 ***	0
Quarter 8	732	652	80 ***	724	644	80 ***	-1
Quarter 9	707	623	84 ***	696	618	79 ***	5
Quarter 10	687	599	88 ***	677	590	87 ***	1
Quarter 11	675	580	95 ***	662	567	95 ***	0
Quarter 12	657	569	89 ***	643	553	90 ***	-1
Sample size	**2,503**	**2,458**		**2,858**	**2,827**		

Sources: Calculations from IA administrative records and payment records from SSP's Program Management Information System.

Notes: The estimates for each quarter are calculated by averaging the monthly estimates for the three months within the quarter.

Two-tailed t-tests were applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

Appendix B:
SSP Impacts by Quarter and by Province

Table B.1: SSP Impacts on Employment and Earnings, by Quarter

Outcome (Monthly Average)	Program Group	Control Group	Difference (Impact)	Standard Error
Full-time employment rate (%)[a]				
Quarter 1	10.8	9.5	1.3	(0.8)
Quarter 2	15.8	10.5	5.3 ***	(0.9)
Quarter 3	20.1	12.0	8.1 ***	(1.0)
Quarter 4	25.4	13.5	11.8 ***	(1.1)
Quarter 5	29.6	14.8	14.7 ***	(1.1)
Quarter 6	28.8	15.7	13.2 ***	(1.1)
Quarter 7	28.1	16.2	11.9 ***	(1.1)
Quarter 8	27.4	16.4	11.0 ***	(1.1)
Quarter 9	27.2	16.8	10.4 ***	(1.1)
Quarter 10	27.7	18.4	9.3 ***	(1.1)
Quarter 11	28.3	19.1	9.1 ***	(1.2)
Part-time employment rate (%)[b]				
Quarter 1	13.3	14.2	-0.9	(0.9)
Quarter 2	11.5	14.2	-2.7 ***	(0.9)
Quarter 3	11.5	14.0	-2.5 ***	(0.9)
Quarter 4	10.3	13.3	-3.0 ***	(0.9)
Quarter 5	11.0	13.5	-2.5 ***	(0.9)
Quarter 6	11.6	14.9	-3.3 ***	(0.9)
Quarter 7	11.9	15.2	-3.3 ***	(0.9)
Quarter 8	11.9	14.7	-2.8 ***	(0.9)
Quarter 9	12.7	14.6	-1.9 **	(0.9)
Quarter 10	11.9	13.9	-2.0 **	(0.9)
Quarter 11	11.4	14.8	-3.4 ***	(0.9)
Overall employment rate (%)				
Quarter 1	24.1	23.7	0.4	(1.2)
Quarter 2	27.4	24.7	2.7 **	(1.2)
Quarter 3	31.5	26.0	5.5 ***	(1.2)
Quarter 4	35.7	26.8	8.8 ***	(1.3)
Quarter 5	40.6	28.4	12.2 ***	(1.3)
Quarter 6	40.5	30.5	9.9 ***	(1.3)
Quarter 7	40.0	31.4	8.6 ***	(1.3)
Quarter 8	39.3	31.1	8.2 ***	(1.3)
Quarter 9	39.9	31.4	8.5 ***	(1.3)
Quarter 10	39.6	32.3	7.3 ***	(1.3)
Quarter 11	39.6	33.9	5.7 ***	(1.3)

(continued)

Table B.1: SSP Impacts on Employment and Earnings, by Quarter (Cont'd)

Outcome (Monthly Average)	Program Group	Control Group	Difference (Impact)	Standard Error
Average earnings ($/month)				
Quarter 1	147	148	-1	(10.8)
Quarter 2	208	172	35 ***	(13.3)
Quarter 3	256	197	59 ***	(14.7)
Quarter 4	311	211	100 ***	(15.8)
Quarter 5	358	232	125 ***	(16.5)
Quarter 6	359	249	111 ***	(16.6)
Quarter 7	382	283	99 ***	(19.6)
Quarter 8	378	284	94 ***	(20.4)
Quarter 9	375	288	88 ***	(20.2)
Quarter 10	396	317	79 ***	(22.6)
Quarter 11	405	341	64 ***	(23.5)
Sample size (total = 4,961)	**2,503**	**2,458**		

Sources: Calculations from baseline survey data, and 18-month and 36-month follow-up survey data.

Notes: The estimates for quarters 1–11 are calculated by averaging the monthly estimates for the three months within a quarter.

Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent, *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a] "Full-time employment" is defined as working 30 hours or more per week in at least one week during the month.

[b] "Part-time employment" is defined as having some employment but no full-time employment during the month.

Table B.2: SSP Impacts on IA and Supplement Receipt and Payments, by Quarter

Outcome (Monthly Average)	Program Group	Control Group	Difference (Impact)	Standard Error
Receiving IA (%)				
Quarter 1	97.3	97.9	-0.6 *	(0.3)
Quarter 2	88.4	93.5	-5.2 ***	(0.7)
Quarter 3	80.8	89.3	-8.5 ***	(0.9)
Quarter 4	75.1	85.9	-10.8 ***	(1.1)
Quarter 5	69.9	82.8	-12.9 ***	(1.1)
Quarter 6	65.7	80.0	-14.3 ***	(1.2)
Quarter 7	64.6	77.4	-12.8 ***	(1.2)
Quarter 8	63.5	75.3	-11.8 ***	(1.3)
Quarter 9	62.6	73.3	-10.7 ***	(1.3)
Quarter 10	61.5	71.3	-9.8 ***	(1.3)
Quarter 11	60.9	69.5	-8.6 ***	(1.3)
Quarter 12	60.4	68.8	-8.4 ***	(1.3)

(continued)

Table B.2: SSP Impacts on IA and Supplement Receipt and Payments, by Quarter (Cont'd)

Outcome (Monthly Average)	Program Group	Control Group	Difference (Impact)	Standard Error
Average IA payments ($/month)				
Quarter 1	848	837	11	(8)
Quarter 2	782	805	-23 **	(10)
Quarter 3	719	775	-56 ***	(11)
Quarter 4	676	751	-75 ***	(12)
Quarter 5	627	724	-97 ***	(12)
Quarter 6	588	703	-115 ***	(13)
Quarter 7	573	678	-104 ***	(13)
Quarter 8	556	652	-97 ***	(13)
Quarter 9	535	623	-89 ***	(13)
Quarter 10	520	599	-79 ***	(13)
Quarter 11	511	580	-68 ***	(12)
Quarter 12	503	569	-66 ***	(12)
Receiving either IA or SSP (%)				
Quarter 1	97.9	97.9	0.0	(0.3)
Quarter 2	94.9	93.5	1.3 **	(0.6)
Quarter 3	92.6	89.3	3.3 ***	(0.7)
Quarter 4	90.7	85.9	4.8 ***	(0.8)
Quarter 5	89.5	82.8	6.6 ***	(0.9)
Quarter 6	87.5	80.0	7.5 ***	(1.0)
Quarter 7	85.2	77.4	7.8 ***	(1.0)
Quarter 8	83.7	75.3	8.4 ***	(1.1)
Quarter 9	82.1	73.3	8.8 ***	(1.1)
Quarter 10	80.8	71.3	9.5 ***	(1.1)
Quarter 11	80.1	69.5	10.5 ***	(1.2)
Quarter 12	79.2	68.8	10.3 ***	(1.2)
Average payments from IA and SSP supplements ($/month)				
Quarter 1	862	837	25 ***	(8)
Quarter 2	865	805	61 ***	(9)
Quarter 3	843	775	68 ***	(10)
Quarter 4	833	751	82 ***	(11)
Quarter 5	829	724	105 ***	(11)
Quarter 6	793	703	91 ***	(11)
Quarter 7	760	678	83 ***	(12)
Quarter 8	732	652	80 ***	(12)
Quarter 9	707	623	84 ***	(12)
Quarter 10	687	599	88 ***	(12)
Quarter 11	675	580	95 ***	(12)
Quarter 12	657	569	89 ***	(12)
Sample size (total = 4,961)	**2,503**	**2,458**		

Sources: Calculations from IA administrative records and payment records from SSP's Program Management Information System.

Notes: The estimates for each quarter are calculated by averaging the monthly estimates for the three months within the quarter.
Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.
Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.

Table B.3: SSP Impacts on Employment and Earnings, by Province

	British Columbia				New Brunswick			
Outcome (Monthly Average)	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error
Full-time employment rate (%)[a]								
Quarter 1	10.5	8.9	1.5	(1.1)	11.2	10.1	1.1	(1.2)
Quarter 2	14.8	9.9	5.0 ***	(1.3)	16.9	11.1	5.8 ***	(1.3)
Quarter 3	18.8	11.2	7.6 ***	(1.4)	21.5	12.9	8.6 ***	(1.4)
Quarter 4	23.4	13.0	10.4 ***	(1.4)	27.6	14.1	13.5 ***	(1.6)
Quarter 5	27.9	13.6	14.3 ***	(1.5)	31.3	16.1	15.2 ***	(1.6)
Quarter 6	25.9	13.7	12.2 ***	(1.5)	32.0	17.7	14.4 ***	(1.6)
Quarter 7	25.6	15.0	10.6 ***	(1.5)	30.8	17.5	13.3 ***	(1.7)
Quarter 8	25.1	15.6	9.5 ***	(1.5)	29.9	17.3	12.6 ***	(1.6)
Quarter 9	25.3	15.6	9.7 ***	(1.5)	29.3	18.1	11.1 ***	(1.7)
Quarter 10	26.2	17.4	8.8 ***	(1.6)	29.3	19.4	9.8 ***	(1.7)
Quarter 11	26.5	18.5	8.1 ***	(1.6)	30.1	19.9	10.3 ***	(1.7)
Part-time employment rate (%)[b]								
Quarter 1	12.5	14.2	-1.7	(1.3)	14.1	14.2	-0.2	(1.4)
Quarter 2	10.3	13.5	-3.1 **	(1.2)	12.8	14.9	-2.1	(1.3)
Quarter 3	10.6	13.2	-2.6 **	(1.2)	12.3	14.7	-2.4 *	(1.3)
Quarter 4	10.3	13.4	-3.1 **	(1.2)	10.2	13.1	-2.9 **	(1.2)
Quarter 5	11.4	13.3	-1.9	(1.2)	10.7	13.8	-3.1 **	(1.3)
Quarter 6	11.9	14.5	-2.5 **	(1.3)	11.3	15.3	-4.0 ***	(1.3)
Quarter 7	11.9	14.7	-2.8 **	(1.3)	12.0	15.7	-3.7 ***	(1.3)
Quarter 8	11.5	14.0	-2.5 *	(1.3)	12.3	15.4	-3.0 **	(1.4)
Quarter 9	11.8	13.6	-1.8	(1.3)	13.7	15.7	-2.0	(1.4)
Quarter 10	11.4	12.9	-1.5	(1.2)	12.5	14.8	-2.4 *	(1.3)
Quarter 11	10.8	13.5	-2.7 **	(1.2)	12.0	16.0	-4.0 ***	(1.3)

(continued)

Table B.3: SSP Impacts on Employment and Earnings, by Province (Cont'd)

	British Columbia				New Brunswick			
Outcome (Monthly Average)	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error
Overall employment rate (%)								
Quarter 1	23.0	23.2	-0.1	(1.6)	25.2	24.3	0.9	(1.7)
Quarter 2	25.2	23.3	1.8	(1.6)	29.7	26.0	3.7 **	(1.7)
Quarter 3	29.4	24.4	5.0 ***	(1.7)	33.8	27.6	6.2 ***	(1.8)
Quarter 4	33.7	26.4	7.3 ***	(1.7)	37.8	27.3	10.5 ***	(1.8)
Quarter 5	39.3	26.9	12.4 ***	(1.8)	42.0	29.9	12.1 ***	(1.9)
Quarter 6	37.8	28.1	9.7 ***	(1.8)	43.3	33.0	10.3 ***	(1.9)
Quarter 7	37.5	29.7	7.8 ***	(1.8)	42.8	33.2	9.6 ***	(1.9)
Quarter 8	36.6	29.6	7.0 ***	(1.8)	42.3	32.6	9.6 ***	(1.9)
Quarter 9	37.1	29.1	7.9 ***	(1.8)	42.9	33.8	9.1 ***	(1.9)
Quarter 10	37.6	30.3	7.3 ***	(1.8)	41.7	34.3	7.4 ***	(1.9)
Quarter 11	37.3	32.0	5.3 ***	(1.8)	42.1	35.9	6.2 ***	(1.9)
Average earnings ($/month)								
Quarter 1	163	171	-8	(17)	130	124	6	(13)
Quarter 2	225	199	26	(21)	189	146	44 ***	(15)
Quarter 3	279	221	58 **	(23)	231	172	59 ***	(18)
Quarter 4	339	242	97 ***	(25)	282	180	102 ***	(19)
Quarter 5	400	259	141 ***	(26)	312	206	107 ***	(20)
Quarter 6	386	263	123 ***	(26)	331	234	96 ***	(20)
Quarter 7	420	319	101 ***	(33)	341	247	94 ***	(21)
Quarter 8	415	331	84 **	(35)	339	237	102 ***	(21)
Quarter 9	410	322	88 ***	(34)	339	254	85 ***	(21)
Quarter 10	443	346	97 **	(38)	347	287	60 **	(24)
Quarter 11	453	381	72 *	(40)	354	301	54 **	(24)
Sample size (total = 4,961)	**1,296**	**1,241**			**1,207**	**1,217**		

Sources: Calculations from 36-month follow-up survey data.

Notes: The estimates for quarters 1–11 are calculated by averaging the monthly estimates for the three months within a quarter.

The estimates for quarter 12 are calculated by averaging the estimates for months 34 and 35.

Two-tailed t-tests were applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a]"Full-time employment" is defined as working 30 hours or more per week in at least one week during the month.

[b]"Part-time employment" is defined as having some employment but no full-time employment during the month.

Table B.4: SSP Impacts on IA and Supplement Receipt and Payments, by Province

	British Columbia				New Brunswick			
Outcome (Monthly Average)	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error
Receiving IA (%)								
Quarter 1	97.5	97.5	0.0	(0.5)	97.1	98.3	-1.2 ***	(0.4)
Quarter 2	90.9	93.5	-2.6 ***	(0.9)	85.7	93.6	-7.9 ***	(1.1)
Quarter 3	85.4	90.4	-5.0 ***	(1.2)	75.9	88.2	-12.3 ***	(1.4)
Quarter 4	81.3	87.5	-6.2 ***	(1.4)	68.4	84.3	-15.9 ***	(1.6)
Quarter 5	75.8	85.5	-9.7 ***	(1.5)	63.7	80.1	-16.4 ***	(1.7)
Quarter 6	70.5	82.7	-12.3 ***	(1.6)	60.6	77.2	-16.6 ***	(1.8)
Quarter 7	69.6	80.0	-10.4 ***	(1.6)	59.2	74.7	-15.6 ***	(1.8)
Quarter 8	68.9	77.7	-8.9 ***	(1.7)	57.7	72.8	-15.1 ***	(1.8)
Quarter 9	67.0	75.3	-8.2 ***	(1.7)	57.8	71.2	-13.5 ***	(1.9)
Quarter 10	65.4	72.4	-7.0 ***	(1.8)	57.3	70.1	-12.8 ***	(1.9)
Quarter 11	64.9	70.4	-5.4 ***	(1.8)	56.6	68.7	-12.1 ***	(1.9)
Quarter 12	62.8	69.5	-6.7 ***	(1.8)	57.8	68.2	-10.4 ***	(1.9)
Average IA payments ($/month)								
Quarter 1	1014	999	15	(11)	670	672	-3	(8)
Quarter 2	952	964	-13	(14)	600	642	-42 ***	(10)
Quarter 3	889	938	-49 ***	(16)	536	608	-73 ***	(12)
Quarter 4	847	910	-63 ***	(17)	493	589	-96 ***	(13)
Quarter 5	784	879	-95 ***	(18)	458	566	-108 ***	(14)
Quarter 6	734	857	-124 ***	(19)	432	545	-113 ***	(14)
Quarter 7	717	825	-107 ***	(19)	419	528	-109 ***	(14)
Quarter 8	690	785	-94 ***	(19)	411	518	-107 ***	(14)
Quarter 9	649	736	-87 ***	(19)	412	508	-96 ***	(15)
Quarter 10	624	696	-72 ***	(19)	409	501	-92 ***	(15)
Quarter 11	609	664	-55 ***	(19)	406	494	-87 ***	(15)
Quarter 12	581	643	-62 ***	(19)	419	494	-75 ***	(15)
Receiving either IA or SSP (%)								
Quarter 1	97.9	97.5	0.5	(0.5)	97.8	98.3	-0.5	(0.4)
Quarter 2	96.2	93.5	2.7 ***	(0.8)	93.5	93.6	-0.1	(0.9)
Quarter 3	94.7	90.4	4.3 ***	(0.9)	90.4	88.2	2.2 *	(1.1)

(continued)

Table B.4: SSP Impacts on IA and Supplement Receipt and Payments, by Province (Cont'd)

	British Columbia				New Brunswick			
Outcome (Monthly Average)	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error
Quarter 4	93.5	87.5	6.0 ***	(1.1)	87.7	84.3	3.4 ***	(1.3)
Quarter 5	92.5	85.5	7.1 ***	(1.1)	86.2	80.1	6.0 ***	(1.4)
Quarter 6	90.2	82.7	7.4 ***	(1.3)	84.7	77.2	7.5 ***	(1.5)
Quarter 7	87.5	80.0	7.5 ***	(1.4)	82.8	74.7	8.0 ***	(1.6)
Quarter 8	86.1	77.7	8.4 ***	(1.4)	81.1	72.8	8.3 ***	(1.6)
Quarter 9	84.0	75.3	8.7 ***	(1.5)	80.0	71.2	8.8 ***	(1.6)
Quarter 10	82.3	72.4	9.9 ***	(1.6)	79.1	70.1	9.0 ***	(1.7)
Quarter 11	81.1	70.4	10.7 ***	(1.6)	78.9	68.7	10.3 ***	(1.7)
Quarter 12	79.0	69.5	9.5 ***	(1.6)	79.4	68.2	11.2 ***	(1.7)
Average payments from IA and SSP supplements ($/month)								
Quarter 1	1028	999	30 ***	(11)	684	672	11	(7)
Quarter 2	1025	964	61 ***	(13)	694	642	51 ***	(9)
Quarter 3	1001	938	64 ***	(14)	673	608	64 ***	(11)
Quarter 4	992	910	82 ***	(15)	661	589	73 ***	(11)
Quarter 5	991	879	112 ***	(16)	654	566	88 ***	(12)
Quarter 6	936	857	79 ***	(16)	641	545	96 ***	(13)
Quarter 7	896	825	71 ***	(17)	615	528	87 ***	(13)
Quarter 8	859	785	74 ***	(18)	596	518	78 ***	(13)
Quarter 9	815	736	79 ***	(18)	590	508	82 ***	(14)
Quarter 10	781	696	85 ***	(18)	587	501	86 ***	(14)
Quarter 11	758	664	94 ***	(18)	586	494	92 ***	(14)
Quarter 12	726	643	83 ***	(18)	584	494	90 ***	(14)
Sample size (total = 4,958)	**1,296**	**1,241**			**1,207**	**1,217**		

Sources: Calculations from IA administrative records and payment records from SSP's Program Management Information System.

Notes: The estimates for each quarter are calculated by averaging the monthly estimates for the three months within the quarter.

Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

Table B.5: SSP Impacts on the Distributions of Wages and Hours, in Month 33, by Province

	British Columbia				New Brunswick			
Outcome	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error
Hourly wage rate (% in each category)								
Not working	62.5	67.5	-5.0 ***	(1.9)	57.8	63.8	-6.0 ***	(2.0)
Wage unreported[a]	2.1	2.4	-0.3	(0.6)	1.1	2.0	-0.9 *	(0.5)
Less than minimum wage[b]	3.5	3.9	-0.3	(0.8)	3.9	4.5	-0.6	(0.8)
Minimum to $0.99 above minimum	8.6	5.9	2.8 ***	(1.0)	20.9	13.6	7.2 ***	(1.5)
$1.00-$1.99 above minimum	5.8	4.0	1.8 **	(0.9)	6.0	4.1	1.9 **	(0.9)
$2.00-$2.99 above minimum	2.9	2.0	0.9	(0.6)	3.3	3.3	0.0	(0.7)
$3.00 or more above minimum	14.5	14.3	0.2	(1.4)	7.0	8.6	-1.7	(1.1)
Hours worked per week (% in each category)								
Not working	62.5	67.5	-5.0 ***	(1.9)	57.8	63.8	-6.0 ***	(2.0)
Hours per week unreported[a]	0.9	0.9	0.0	(0.4)	0.2	0.7	-0.6 **	(0.3)
Fewer than 30	9.8	12.6	-2.8 **	(1.2)	12.1	16.1	-4.0 ***	(1.4)
30	4.5	2.0	2.5 ***	(0.7)	6.5	2.1	4.3 ***	(0.8)
31-34	2.5	1.2	1.3 **	(0.5)	2.8	0.9	1.9 ***	(0.5)
35	4.2	2.7	1.5 **	(0.7)	5.1	2.0	3.1 ***	(0.7)
36-39	3.5	2.6	1.0	(0.7)	3.7	2.9	0.9	(0.7)
40	8.3	6.5	1.7 *	(1.0)	7.4	6.4	1.0	(1.0)
More than 40	3.9	4.0	-0.2	(0.8)	4.5	5.0	-0.5	(0.9)
Sample size (total = 4,961)	**1,296**	**1,241**			**1,207**	**1,217**		

Sources: Calculations from 36-month follow-up survey data.

Notes: Two-tailed t-tests were applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a] Sample members in this category were employed during the month but did not report enough information about hours worked and/or earnings for the outcome in question to be calculated.

[b] In British Columbia, the minimum wage was $5.50 per hour from the beginning of the random assignment period in November 1992 until April 1993, when it rose to $6.00. In March 1995, it was increased to $6.50 and, in October 1995, it increased again to $7.00 per hour. In New Brunswick the minimum wage was $5.00 per hour from 1992 to 1995. In January 1996, it increased to $5.25 and, in July 1996, it rose again to $5.50.

Table B.6: SSP Impacts on Monthly Income and Net Transfer Payments in the Six Months Prior to the 36-Month Follow-Up Interview, by Province

	British Columbia				New Brunswick			
Outcome	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error
Sources of individual income ($)								
Earnings	453	400	53	(40)	359	296	63 ***	(23)
SSP supplement payments	147	0	147 ***	(9)	166	0	166 ***	(9)
IA payments	589	650	-60 ***	(18)	416	494	-78 ***	(15)
Other transfer payments[a]	242	242	0	(7)	236	230	7	(9)
Other unearned income[b]	101	111	-10	(10)	58	76	-17	(12)
Projected taxes and net transfer payments ($)								
Projected income taxes[c]	110	78	32 **	(15)	77	44	33 ***	(7)
Net transfer payments[d]	883	823	60 **	(27)	742	690	51 ***	(17)
Total individual and family income								
Total individual income ($)	1550	1415	135 ***	(39)	1234	1100	134 ***	(25)
Total individual income net of taxes ($)	1440	1337	103 ***	(27)	1157	1056	101 ***	(20)
Total family income ($)[e]	1729	1614	116 **	(51)	1433	1244	189 ***	(35)
Percentage with income below the low income cut-off[f]	77.2	83.9	-6.7 ***	(1.8)	76.5	88.5	-12.0 ***	(1.7)
Sample size (total = 4,961)	**1,296**	**1,241**			**1,207**	**1,217**		

Sources: Calculations from 36-month follow-up survey data, IA administrative records, and payment records from SSP's Program Management Information System.

Notes: Sample sizes vary for individual measures because of missing values. This may cause slight discrepancies in sums and differences.

Two-tailed t-tests were applied to differences in outcomes between the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a] Includes the Child Tax Benefit, the Goods and Services Tax Credit, Employment Insurance (EI), and provincial tax credits.

[b] Includes alimony, child support, income from roomers and boarders, and other reported income.

[c] Includes projected EI premiums and Canada Pension Plan premiums deducted at payroll and projected income taxes. Payroll deductions and income taxes were projected from federal and provincial tax schedules and data on earned and unearned income and SSP supplement payments; the actual taxes paid by sample members may differ from these projections.

[d] Net transfer payments include public expenditures on SSP, IA payments, and other transfers, net of income tax revenue.

[e] Family income is measured by the sum of the sample member's income and the labour earnings of any other members of that person's family.

[f] Calculated by comparing annualized family income with the low income cut-off defined by Statistics Canada for the sample member's location and family size.

Table B.7: SSP Impacts on Expenditures, Hardship, and Assets at Time of 36-Month Follow-Up Interview, by Province

	British Columbia				New Brunswick			
Outcome	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error
Expenditures ($/month)								
Spending on groceries	93	90	3	(2)	78	75	3 **	(2)
Spending on eating out	12	10	2 **	(1)	12	10	1 **	(1)
Spending on children's clothing	44	41	3	(2)	51	47	4 *	(2)
Spending on own clothing	16	14	2	(1)	16	14	1	(1)
Spending on child care	30	20	10 ***	(3)	34	22	12 ***	(3)
Rent	568	569	-1	(10)	322	299	23 ***	(7)
Hardship (%)								
Used food bank last 3 months	18.3	16.9	1.4	(1.5)	17.4	20.8	-3.4 **	(1.6)
Couldn't get groceries	36.4	40.3	-3.9 **	(1.9)	23.4	28.4	-4.9 ***	(1.8)
Gas or hydro turned off	2.2	1.8	0.4	(0.6)	2.8	2.5	0.4	(0.7)
Structural problems in house	8.5	10.5	-2.0 *	(1.2)	12.2	14.2	-2.0	(1.4)
Things not working properly in house	11.8	12.4	-0.7	(1.3)	11.3	13.0	-1.7	(1.3)
Couldn't visit dentist in last 6 months	21.8	20.0	1.8	(1.6)	31.4	34.1	-2.7	(1.9)
Couldn't visit doctor in last 6 months	5.3	5.1	0.3	(0.9)	7.7	8.3	-0.6	(1.1)
Couldn't get medication in last 6 months	10.2	10.7	-0.4	(1.2)	15.1	17.7	-2.6 *	(1.5)
Total savings								
Amount of savings ($)	641	706	-65	(245)	319	315	4	(122)
Savings unreported (%)	7.0	7.4	-0.4	(1.0)	4.7	5.7	-0.9	(0.9)
No savings (%)	28.1	27.4	0.7	(1.8)	37.2	41.3	-4.1 **	(2.0)
Savings of $1-$500 (%)	49.5	52.9	-3.5 *	(2.0)	48.1	45.5	2.6	(2.0)
Savings of $500 and above (%)	15.4	12.3	3.2 **	(1.4)	9.9	7.5	2.5 **	(1.1)
Total debt								
Amount of debt ($)	2,631	2,532	99	(285)	2,370	2,631	-262	(240)
Debt unreported (%)	3.1	4.1	-1.0	(0.7)	3.7	3.9	-0.3	(0.8)
No debt (%)	48.9	50.0	-1.0	(2.0)	47.6	47.3	0.3	(2.0)
Debt of $1-$2,499 (%)	23.2	22.9	0.3	(1.7)	26.8	25.8	1.0	(1.8)
Debt of $2,500 and above (%)	24.8	23.1	1.7	(1.7)	22.0	22.9	-1.0	(1.7)
Sample size (total = 4,945)[a]	**1,296**	**1,241**			**1,207**	**1,217**		

Source: Calculations from 36-month follow-up survey data.

Notes: Sample sizes vary for individual measures because of missing values. This may cause slight discrepancies in sums and differences.

Food spending refers to money spent on groceries and on eating out. Sample members were asked at the 36-month interview how much they spent in an average week on each of these items. Food expenditures were converted to monthly estimates by assuming 4.33 weeks per month. For other items, the precise questions on the 36-month survey were as follows. For use of a food bank: "In the past three months, have you or other members of your family used a food bank to obtain groceries for your household?" For children's clothing: "On average, how much do you and your family spend each month on children's clothing?" For monthly rent: "What do you pay for your monthly rent or mortgage? (Do not include subsidies that are paid directly to you.)" Number of children (age 0–18) refers to number of children indicated on IA administrative records in the month of random assignment. Overall sample includes a small number of observations where number of children is zero or missing.

Two-tailed t-tests were applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a] Sample sizes vary for individual measures because of missing values.

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